DEVELOPMENT OF A PROFILE OF COMPETENCIES AVAILABLE AND TRAINING DESIGN FOR THE TEACHER EDUCATORS AT THE PRIMARY LEVEL

:

An ERIC Project Report

Prepared by
Dr. Vasant D. Bhat
Reader in Education
and
Principal Investigator

Project assistance
Ms. G. Sheela
Mr. U Lakshmanaiah
Junior Project Fellows

REGIONAL INSTITUTE OF EDUCATION, MYSORE (NCERT)

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CHAPTER I

INTRODUCTION

Universalisation of Elementary Education and eradication of adult illiteracy have been two of the most important and basic goals of educational development in India since independence. Therefore, considerable efforts have been made towards providing the compulsory education to all children upto the age of 14 years, which is a directive principle of the Indian Constitution under Article 45.

Since independence the country has made considerable progress towards the target of Universalisation of Elementary Education and Adult Literacy. Though it has not been possible to reach the target, literacy percentage improved from 16.7% in 1951 to 36.2% in 1981 and to 52.11% in 1991. To ensure the attainmemt of the Universalisation of Elementary Education and eradication of illiteracy, the National Policy on Education (1986) had reset the target which is reflected in its assertion that all children who attain the age of about 11 years by 1990 will have five years of schooling or its equivalent through the non-formal stream; like wise by 1995, all children were expected to be provided free and compulsory education upto 14 years of age. The measures proposed to improve the quality of elementary education includes reform of the content and process of education, improvement of school buildings and other facilities, provision of additional teachers and the comprehensive programme of teacher education.

1.1 U.E.E. AND THE PRIMARY SCHOOL TEACHER

Success of an education programme in schools depends on the quality teachers, which in turn, largely depends upon the quality of their professional education. A teacher acquires a real understanding of children and of the subjects, he teaches if he is provided rich preparatory classroom experiences in training. One therefore, expects the institutions of teacher education to turn out competent teachers with sound knowledge of school subjects, insight into the learning processes and ability to design and implement appropriate instructional strategies for the harmonious development of children.

The various commissions on education constituted by the Government of India such as University Education Commission (1949),the Secondary Education Commission (1953), and Indian Education Commission (1964-66), had made recommendations for the suitable improvement in teacher education. The system in practice, however had by and large remained unchanged.

The National Policy of Education (1986), and the Programme of Action (1992), therefore, emphasised the need for teachers involvement in all educational processes including policy formulation, curriculum development, methodology and evaluation. The NPE recommended to the central and state government to overhaul the system of teacher education in the country so as to raise the standard of teacher education. Infact, teacher education programmes

with equal emphasis on pre-service and in-service education have been launched in the country. The programmes are in the form of Programme of Mass Orientation of School Teachers (PMOST), Special Orientation of Primary School Teachers (SOPT), establishment of District Institutes of Education and Training (DIET), establishment and strengthening of University Departments of Education and upgradation of Colleges of Teacher Education (CTE).

To augment the teacher education system in the country, a National Council for Teacher Education (NCTE) has been set up. The main emphasis of this national body is to improve the quality of teacher education programmes by revising the teacher education curriculum at all levels, namely pre-primary, primary and secondary. The NCTE has been given statutory power in regard to teacher education in the country. Based on the National Teacher Education Curriculum, the State Government and Universities have revised their teacher education curricula.

1.2 DIET AS A DISTRICT LEVEL INSTITUTION OF TEACHER EDUCATION

The Education Commission (1964-66), observed "of all the factors that influence the quality of education ... the quality, competence and character of teachers are undoubtedly the most significant". But along with these, the quality of training and support provided to them also plays an important role.

Until the adoption of the NPE (1986), this support in the area of elementary education was provided largely at the

national and state level only by institutions like NCERT, and SCERT. Below the state level, there were elementary teacher education institutions but their activities, were confined mostly to pre-service teacher education. The physical, human and academic resources of most of the institutions were inadequate even for this limited role.

At the time of the adoption of NPE, both national and state level agencies were unable to support elementary and adult education systems as they were too vast. The NPE-1986 suggested further expansion and also considerable qualitative improvement. Support to them has been provided in a decentralised manner which has become imperative. The NPE and the POA accordingly envisaged addition of district level support system in the shape of District Institutes of Education and Training (DIET). With this, expectation would be of wider quantitative coverage as well as qualitative as these institutes would be closer to the field, and therefore more alive to its problems and needs.

Thus, the DIET is expected to function as a body at the district level for the qualitative improvement of primary teacher education. Many centrally sponsored schemes like Operation Black Board (OBB), improvement of Science Education, Educational Technology, Integrated Education of Disabled Children, and Minimum Levels of Learning come under the purview of the DIETs for implementation. The Regional Institutes of Education (RIEs) under the NCERT is expected to function as the Regional Nodal Agencies. The RIE, Mysore,

for example, is expected to function as the Regional Nodal Agency for four Southern states and the two union territories in the southern region.

1.3 DIET's MISSION

A DIET's mission is to provide academic and resource support at the grassroot level for the success of various strategies and programmes being undertaken in the areas of elementary and adult education with special reference to

1. Universalisation of Elementary Education

2. National Literacy Mission (NLM) and its target of functional literacy in the 15-35 age group.

A DIET is expected to perform three, main functions. They are,

1. Training - both of induction level as well as continuing varieties;

2. Resource support - extension/guidance, development of materials, aids, evaluation tools, etc. and

3. Action research - both in elementary and adult education.

The special focus groups identified for the DIET's functioning are

1. Girls and Women

2. Scheduled Castes and Scheduled Tribes

3. Minorities

4. The handicapped

5. Other educationally disadvantaged groups

    eg: Working children, slum dwellers, inhabitants of hilly,
        desert and other inaccessible areas, etc.

Over and above these, in the DPEP districts, the DIET faculty members are expected to perform several functions and assume many responsibilities which come under the purview of DPE programme.

1.4 WHAT IS A COMPETENCY ?

Competency is a term used extensively and hence, it is needless to say that, it is defined in different ways. Teacher education and the job performance of a teacher is one of the contexts in which the term is used. Several researchers have attempted to define this term. Houstan (1987) stated that "Competencies are the requirements of a competency based teacher education, which includes the knowledge, skills and values the student must demonstrate for successful completion of the programme. Similar views were expressed with respect to the meaning of a competency by McNamara (1992) and APEID, UNESCO (1980). According to DPEP, Tamilnadu (1996) teacher competence refers to "the right way of conveying units of knowledge, application and skills to students". The right way here, includes knowledge of content, processes, methods and means of conveying content in an interesting way, involving the activities of students. Hall and Jones (1976) had viewed competencies as less abstract than goals and objectives as more specific than a competency. Teacher competencies have their super ordinate and subordinate relationships as shown below.

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┌─────────────────────────────────┐
│          Role/Function          │
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                 │
┌─────────────────────────────────┐
│              Task               │
└─────────────────────────────────┘
                 │
┌─────────────────────────────────┐
│             Subtask             │
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┌─────────────────────────────────┐
│            Competency           │
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                 │
┌─────────────────────────────────┐
│          Subcompetency          │
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┌─────────────────────────────────┐
│              Skill              │
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                 │
┌─────────────────────────────────┐
│             Subskill            │
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┌─────────────────────────────────┐
│          Unit Behaviour         │
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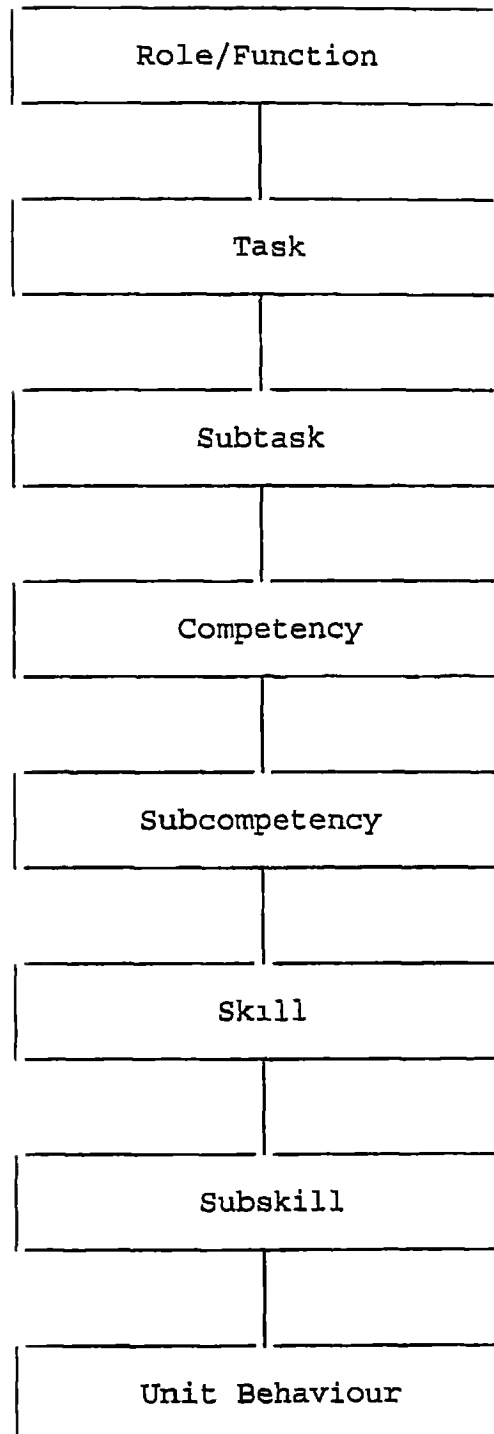
The said analysis is predominantly behaviouristic. It may not be wrong to say that the idea of competency and its development is based on the behaviouristic approach.

However, the other schools of thought such as Humanism have
been considered, though in a latent manner. This is because
the behaviouristic thinking is well founded in the policy
and teacher training practices.

To define a competency, we must determine what the
actions were and their place in a system and sequence of
behaviour and what the results and effects were and what the
intent or meaning of the actions and results were.

It is through such a definition that the concept of a
job competency represents an ability. A person's set of
competencies reflect his or her capability. They are
describing what he or she can do, not necessarily what he or
she does, nor does all the time regardless of the situation
and setting. To understand the individual's specific
behaviour that was effective, we should know what capability
the individual has brought to the situation. Without knowing
this about the person, it would be difficult to predict,
describe or interpret his or her specific actions and why
they were effective.

Competencies are characteristics that are causally
related to effective and/or superior performance in a job.
This means that there is evidence which indicates that
possession of the characteristic precedes and leads to
effective and/or superior performance in that job. In
addition to a theoretical prediction as to the causal
relationship between a characteristic and job performance,
an empirical relationship between the characteristic as an

independent variable and job performance as a dependent variable should exist.

A threshold competency is a person's generic knowledge, motive, trait, self-image, social role, or skill which is essential to performing a job, but is not causally related to superior job performance. For example, speaking the native language of one's subordinates would be considered a threshold competency. On the other hand, those characteristics that differentiate superior performance from average and poor performance are competencies.

Different levels of competencies can exist. These levels of competencies are different than various types of competencies. Various types of competencies involve different domains of human functioning.

To have a full understanding of the capability that a person brings to a work situation, we must be able to conceptually distinguish among these types and levels of competencies. These distinctions have implications for application of this understanding to selection systems and training programs. They also have implications for how each type of competency is measured or assessed. This latter point helps to explain findings from various investigators which appear, on the surface, to disagree. With proper definition and measurement they may, in fact, support each other.

1.5 CHARACTERISTIC FEATURES OF A COMPETENCY

A study of the meanings attributed to the term competency or meaning with which it has been used in

literatures pertaining to teacher education, reveals that certain common characteristics are applicable to a competency. These characteristics are

i. A competency consists of one or more skills, whose mastery would influence the attainment of the competency.

ii. A competency has its linkages with all the three domains under which performance can be assessed. It spans the domains of knowledge, skill and attitude. Eventhough the skilled performance of a teacher is closely associated with his competence, such a performance would have a knowledge and experience based and a favourable attitude

iii. Competencies, since have a performance dimension to them, are observable and demonstrable.

iv. Because the competencies are observable, they are also measurable. It is possible to assess a competency from the performance of a teacher. It is not necessary that all competencies of a teacher have the same extent of knowledge, skill and attitude. There may be competencies which have a layer part of it pertaining to knowledge than to skill and attitude. Some have referred to such competencies as cognitive competencies whereas, there may be competencies which are skill/performance loaded. In this work, competencies which have a predominant part of skills have been considered. A reason being that such competencies are not devoid of knowledge and attitudinal dimensions and that they are more closely linked to the performance assessment of a teacher or to his job analysis.

1.6 COMPETENCY TYPES AND CATEGORIES

In an article titled "Competency Based Teacher Training Programme", published by the DPEP, Tamil Nadu (1996), competencies of a teacher have been classified under

1. Classroom competencies,

2. Competencies related to administration and management,

3. Competencies in relation to school, society, co-workers and pupils,

4. Competencies in relation to content and curriculum,

5. Motivational and value based competencies

Further, DPEP, Tamil Nadu (1996) states five categories (types) of competencies as:

1. Cognitive based competencies,

2. Performance based competencies,

3. Consequence based competencies,

4. Affective competencies, and

5. Exploratory competencies

NCTE, in its document "Competency Based and Commitment Oriented Teacher Education for Quality School Education" (1998) lists ten competency categories. They are:

1. Contextual competencies,

2. Conceptual competencies,·

3. Content competencies,

4. Transactional competencies,

5. Competencies related to other educational activities,

6. Competencies to develop teaching learning material,

7. Evaluation competencies,

8. Management competencies,

9. Competencies related to working with parents, and

10. Competencies related to working with community and other agencies.

The above and other related efforts towards identification and categorisation of teacher competency reveal that there are several ways in which competencies can be classified and the number of categories under one classification differs from that of the other due to

(a) the difference in the perspective taken of a competency and

(b) the difference in the total number of functions of teacher for which competencies are being identified.

1.7 THE PRESENT EFFORT

A novel educational institution called District Institute of Education and Training (DIET) has been conceived and defined in NPE and POA as one of the major steps towards effective teacher education and qualitative improvement of primary education. Many centrally sponsored schemes like Operation Blackboard, improvement of science education, MLL come under the purview of the DIETs for implementation.

The DIET faculty are envisaged with a lot of responsibilities to the cause of quality improvement at primary

level. The success of DIET centres around the competent DIET faculty members. In order to discharge the responsibilities in a professionally sound manner, the DIET faculty should possess requisite competencies. Without these competencies, there can be a gap between their role expectation and role behaviour. In order to identify this gap and provide scope for bridging this gap through well designed and need-based training programmes by the concerned agencies such as the DSERT and the RIE, it was felt very essential to study the competencies and training needs of DIET faculty members. Hence, this research project on "Development of a Profile of Competencies Available and a Training Design for Teacher Educators at the Elementary Level" was taken up.

1.8 THE OBJECTIVES

The following objectives were set for the present investigation.

1. To identify competencies expected in teacher educators at the elementary level based on the national document "DIET GUIDELINES - 1989".

2. To study the extent of requirement of the identified competencies in terms of the perceptions of teacher educators at the elementary level.

3. To identify the profile of competencies presently availabl among teacher educators in terms of their self perception.

4. To identify the training needs and preferences of elementary teacher educators in terms of their self perception.

5. To study relevance of qualification and experiential background of teacher educators to the task they perform.

6. To study degree of professionalism shown by the teacher educators in planning and implementing inservice education programmes.

7. To formulate suggestive programmes of staff development for teacher educators at the elementary level.

1.9 DEFINITION OF TERMS

Competency

The adequacy with which a task is performed whose demands can be reasonably well defined.

Training Need

An expressed desire by an individual for training in terms of knowledge, attitude and skill that are perceived by him as necessary for his performing a task adequately whose demands can be reasonably well defined.

1.10 EXPECTED OUTCOMES OF THE STUDY

1. A profile of competencies expected and available.

2. Identification of areas of inservice training needs of teacher educators.

3. Suggested inservice training programme for training the teacher educators in DIETs.

CHAPTER II

REVIEW OF RELATED LITERATURE

2.1 INTRODUCTION

The review of related literature helps an investigator to define his problem not only with reference to the problem that the investigator wishes to tackle but also in relating the topic to the chosen field. It is an indispensable step for a researcher as it gives him a deeper insight and understanding of his problem. By examining what is already researched in the area, the investigator becomes familiar with various trends and established facts in the area. According to Best (1963), "A familiarity with the literature in any problem area helps the student to discover what is already known, what others have attempted to find out, what methods of attack have been promising or disappointing, and what problems remain to be solved".

For the present study, apart from the books on research methodology and statistics the related literature refers to those studies, writings, documents, articles and books on the DIETs, the DPEP, competency and its measurement, and identification of training needs. The research studies reviewed in this chapter are mainly drawn from the documented research abstract reported in the four surveys of educational research.

2.2 RESEARCH STUDIES REPORTED

Mathew (1980), made a study of "Factorial Structure of Teaching Competencies among Secondary School Teachers". The

study attempted to identify desirable teaching competencies of a physics teacher in the context of certain presage process and product variables. The major findings of the study were: (1) Fourteen factors were identified. They were interpreted as general teaching competency, competency of the teacher's concern for students, competency of using audio-visual aids, competency of professional perception, competency of giving assignment, competency of illustrating with examples, competency of pacing while introducing logical exposition, classroom management, use of questions, initiating pupil participation, use of blackboard, recognising attending behaviour and competency of achieving closure. (2) The competencies identified through factor analysis related very closely with those expected of the teachers by students. The study by Passi and Sharma (1982), also reveals the same factors.

Agrawal (1969), investigated the "Measurement and Competence of Teachers of Primary School in M.P.". A teaching competency scale was used for data collection. The main findings of the study were: (1) More than 53% teachers were not intelligent enough to be teachers. (2) In the classroom teaching about 52% teachers were below average, whereas 47.35% were weak in the competency of organising co-curricular activities. (3) The main problem of the teachers were also listed.

Sathyagirirajan (1985) observed: (1) Teacher competency was related to intelligence, emotional stability, conscien-

tiousness, tendermindedness, trusted nature placid nature, self-sufficiency and relaxedness factors of Cattell's 16 PF Questionnaire.(2) It was significantly related to creativity dynamism, organised dameanour and warmth and acceptance, self-actualisation and profession perception of teachers.

Sharma (1964), investigated "The Primary Teachers Training Programme in Delhi in the Post-Independence Period 1947-64". The findings of this study were: (1) Development in the aims of primary teacher training were made so that it can be in censonance with needs, interest and emphasis of the 3 R's of the children. (2) Problems of multiple class teaching large sized class and evaluation were included under the paper, principles of teaching school curriculum. (3) Community work and living were made compulsory.

A study was conducted by Gogate (1983), on "Training of Primary School Teachers in the Context of U.E.E.". The project focussed on:

(1) Preparation of literature for school teachers which could be useful in their in-service training and also in their subtraining.

(2) Orientation of primary school teachers,teacher-education and extension officers with the help of literature.

(3) Creation of social awareness among primary school teachers for the education of economically and socially backward children.

Viswanathappa (1992), made "An Evaluation of Pre-service Teacher Education Programme of DIETs in A.P." Major findings of the study were:

(1) Out of 148 objectives from various sources, 144 objectives were identified as important objectives.

(2) The existing curricular programme were found to be adequate for the realisation of 64 objectives only.

(3) PSTE branch is running with inadequate teaching staff.

(4) The majority of the teaching staffs in the DIETs have no specialised training in the elementary education.

(5) Most of the faculty members were having high school teaching experience than elementary school teaching experience.

(6) Majority of the teacher educators suggested 45 days of practice teaching in each of the two years for PSTE programme.

(7) Among 27 physical facilities some are available.

(8) Only four DIETs have demonstration school of its own.

(9) Teaching competency of the students were high in lesson planning and low in recapitulation and evaluation.

(10) There was no significant impact of the number of co-curricular activities organised by DIETs, co-operating school used for practice teaching difficulties experienced by the DIETs in making arrangements for practice teaching in the teaching competence of student teachers.

George and Joseph (1978), made an investigation on "Effect of Micro teaching on General Teaching Competence and Teacher Attitude of the B.Ed.Trainees", the major objectives of the study were: (1) to discover if there was any

significant change in the general teaching competence (GTC
of the B.Ed. trainees as a result of exposure to the
technique of microteaching, and (2) to discover if there was
any significant change in the attitude of the B.Ed. trainees
as a result of adoption of microteaching. The Ahluwalia's
Teacher Attitude Inventory, the Baroda General Teaching
Competence Scale and Evaluation Proforma for Teaching Skills
were used to collect data. The major findings of the study
were:

(i) Intensive training and persistent practice in the five
instructional skills influenced in varying degrees the
sensitivity of the B.Ed. trainees to assimilate partly
other related pre-instructional, instructional and
post-instructional skills and to integrate them in
their repertoire of teaching behaviour in the teaching
situation.

(ii) Skills were not independent but interdependent.

(iii) There was no significant difference in the teacher
attitude scores of the B.Ed. trainees before and after
exposure to the technique of microteaching.

(iv) The student's reactions to the microteaching approach
were positive and favourable generally.

Dogra (1986) made a study of "Effect of Training in
Concept Development Strategies upon Classroom Communication
Behaviour Patterns". The method of enquiry adopted in the
study was a non-equivalent control group quasi-experimental
design where classroom behaviour of sampled subjects was

observed and coded through the content analysis system six times. The study revealed: The student teachers trained in the use of the content analysis system showed a significant increase in defining, concrete examples, negative examples, amplification and vivid categories. The student-teachers training in CAS presented the content by using different types of examples, by enlarging the focus of attention by relating or contrasting two or more things.

Patel, P.A. conducted a study titled "A Comparative Study of Effectiveness of Integrating Five Training Skills through the Summative Model and the Group with Vicarious Integration upon Training Competence of Student Teachers".

Sharma, S.K. conducted the study "A Presage - Process Product Study of Training Effectiveness of Hindi Teachers of Higher Secondary Schools of Indore District". The main objective of the study was to arrive at a cluster of training competencies required for effective Hindi training at secondary level.

Agrawal, M.P. has made efforts at measuring competencies in the study "Measurement of Competence of Teachers of Primary Schools".

Das R.C. Pani et al. have conducted a study on "Effectiveness of Different Strategies of Integration of Training Skills in Developing General Training Competence of Student Teachers".

A study conducted at GCPI was titled, "A Study of Comparative Effects of Micro Teaching under Simulated

Condition and Real Condition upon General Training Competencies and Attitudes Towards Training".

Jangira et al. have investigated into the "Use of Micro Teaching for Improving General Training Competence of Inservice Teachers".

Sharma, M.L. has reported two studies titled, "A Study into the Development of Teacher Competencies of B.Ed. Student Teachers in Training Colleges" and "Effectiveness of Pre-service Teacher Training Programme at Elementary Level"

Sinha, P. conducted a study titled, "An Evaluative Study of Teacher Educators" and the study conducted by Sinha, V. was titled, "The Impact of Teacher Education Programme on Professional Efficiency of Teachers".

Tripathi, S.L. reports a study on "The Training of Teachers of Basic Schools". The major objective of the study was to study the growth and development of basic training instructions, highlight the weaknesses of adminitrators, teacher-educators, teacher trainees and find out the measures to improve the existing state of affairs.

Choudhari, K. conducted a study titled, "A Factorial Study of Training Competencies of Teachers Training English at Secondary School Level".

Dernath (1971) attempted to find out some determinants of training efficiency the important correlates of training efficiency, as found by this study were: knowledge of subject matter, sincerity in training, mastery of methods of training, academic qualifications, of exposition, sympathy

with pupils, discipline, student participation and use of training aids.

2.3 STUDIES RELATED TO TEACHER COMPETENCY

This part of the review had been mainly undertaken with a purpose of obtaining a better insight into the nature of studies conducted and the kind of sources and techniques adopted to identify the teacher competencies. Nevertheless, some attention was also given to study the rating criteria selected, procedure of analysis and nature of results obtained from these studies.

2.3.1 An Overview

It was noted that by and large the studies had attempted to determine the competency list and obtain their ratings. The ratings were obtained with a purpose to either prioritise the list or study difference in perception among the various groups. One of the common rating criterion adopted was the 'extent of importance'. The nature of data collected had been quantitative. The study outcomes derived are hence either as a prioritised list of competencies or the presence or absence of difference in perception among the various selected groups.

2.3.2 Sources

The two kind of sources largely chosen by the researchers to determine the competency among the teachers were; 'available literature' and 'expert judgement'.

Available Literature

The researchers although had stated literature as a source, many had specifically not indicated the kind of

literature (Jones, 1985; Grymes, 1990; Shevelenko, 1990; Byrd, 1995; Sale, 1995). Literature like courses were referred to by Aydin (1989) and Bhaskar (1984) to identify the main characteristics of an ideal secondary school mathematics teacher and objectives of methods course respectively Searles and Kudeki (1986) had determined the attributes of an outstanding science teacher by referring to researches in science education and instructional theories.

Expert Judgement

Another source commonly selected by the researchers was a group of experts or prefessionals. The group of experts selected were principals, teacher educators, subject experts and even the teacher themselves. Among the earliest attempts, Starr (1974) had determined the competencies of a coping first year teacher through the perception of groups of experts consisting of university professors, school principals and teachers. A comparatively less diverse kind of group, consisting of only the school teachers and principals was selected by Anjalwechi (1994) to list the characteristics of effective teachers. Apart from a heterogenous group of experts, a homogenous group such as principals (Erickson, 1991; Sale, 1995), deputy head teachers (Cowan, 1984), science supervisors (Chiappette and Collete, 1978a) and teacher practitioners (Terell, 1985), were chosen by the researchers to determine the competency among the teachers. Coates (1985) had obtained the list of professionals published in automated literature research. Besides, the above category of experts,

group of teachers were also chosen as a source by many
researchers (Butzow and Qureshi, 1978; Chiapetta and Collette,
1978b; Bauer, 1988; Birnie, 1988; Steffens, 1990; Boutin,
1991; Singleton, 1994; Byrd, 1995).

The researchers mentioned so far, had utilised only one
source, whereas, Menon et al. (1983) had attempted to identify
the instructional skills of a teacher from related literature,
observation and logical analysis, and expert opinion.

Apart from the above, a few had utilised a pre-
determined list (Newton and Brathwaite, 1987; Stavros, 1989;
Abdulmalik, 1991). Whereas, few others though had determined
the teacher competency, did not mention the source (Behroozian,
1982; Sass-Lehrer, 1982; Burton, 1983; Bramlett, 1984;
Chuaratanaphong, 1985; Stafford, 1987; Vanhaitsma, 1987;
Airaway, 1988; Christensen, 1988; Almeida, 1995).

2.3.3 Techniques

Various techniques were adopted by the researchers to
elicit the teacher competency from the selected sources.

i. Literature and document analysis

A large number of studies although indicated as a
source, rarely specification were made regarding the procedure
of analysis adopted to list the competency. However, it was
assumed that the procedure of literature or document analysis
was generally adopted.

ii. Questionnaire

Identification of teacher competencies from the opinion
of experts was by and large obtained through questionnaires

(Cowan, 1984; Steffens, 1990; Erickson, 1991; Byrd, 1995; Sale, 1995). An important observation made was that Delphi technique, a procedure wherein a series of interrogation of a selected sample is carried out by means of mailed questionnaires was adopted by many researchers (Starr, 1974; Chiapetta and Collette, 1978a, 1978b, 1980; Coates, 1985, Terrell, :985; Anjalwechi, 1994).

iii. Observation

The technique of observation was largely used when a homogenous group of teachers were selected as a source. An observation schedule to record the performance of teachers was used by Abdulmalik (1991) and Babu (1994). Others like Birnie (1988) had adopted the technique of observation in naturalistic situation, while, UNESCO, APEID (1986) and Boutin (1991) had adopted the critical incident technique.

iv. Focus group technique

Except one researcher, Singleton (1994) had adopted this technique on a group of teachers to identify the essential competencies for collaborative teaching process.

Apart from the above researchers, a few others had adopted more than one technique to determine the competency among the teachers. In one of the earliest attempts by Butzow and Qureshi (1978), interview procedure as well as video-taped 10-20 minutes segment of the teaching practice of science teacher were used. Whereas, Bramlett (1984) had utilised interview and questionnaire technique. Bauer (1988) had determined the attributes of five exemplary primary teachers

through the technique of participant observation, interviews and document analysis.

2.3.4 Rating Criteria

As mentioned earlier, apart from eliciting the competencies among the teachers, attempts were also made to prioritise the identified list. One of the common rating criterion selected by researchers was the 'level of importance' (Behroozian, 1982; Burton, 1983; Jones, 1985, Searles and Kudeki, 1986; Newton and Brathwaite, 1987; Stafford, 1987; Airaway, 1988). Another rating criterion, viz. 'essentiality' was also selected by a few (Starr, 1974, Singleton, 1994). The criterion of 'level of utilisation' was used in order to obtain the ratings from the teachers (Grymes, 1990). Almedia (1990) had obtained the 'extent of performance' in terms of the percentage of time spent by the teachers.

A simultaneous use of the two criteria, level of importance and level of utilisation was also adopted by many researchers (Bramlett, 1984; Christensen, 1988; Steffens, 1990; Abdulmalik, 1991). Some of the other criteria used were 'difficulty of attainment', 'level of learning' and 'extent of criticality' by Bhaskar (1984), Chuartanaphong (1985) and Sass-Lehrer (1982) respectively.

The nature of rating scale largely used by the researchers was the three point or five point Likert scale, except for Sass-Lehrer (1982), who had used a seven point bi-polar scale.

Apart from obtaining the ratings from the experts or teachers on the basis of a given criterion, attempts to

prioritise the competency list in terms of ranks were also made (Chiapetta and Collette, 1978a, 1978b, 1980, Christensen, 1988; Anjalwechi, 1994). The competency list was generally ranked on the basis of their importance.

2.3.5 Analysis Procedures

From the review conducted, it has been noticed that the studies had been carried out with three different purposes; (i) to arrive at a competency list, (ii) to arrive at a priority rating of the identified competency list, (iii) to compare the perceptions of various groups with respect to their ratings.

The kind of data collected by the researchers to a large extent had been quantitative, except for those which had attempted to study in detail the competency among selected teachers (Bauer, 1988; Birnie, 1988; Steffens, 1990). The procedure of analysis adopted to prioritise the competency list were percentage, frequencies,mean and standard deviation. These procedures were commonly followed by the researchers who had adopted the Delphi technique (Starr, 1974; Coates, 1985; Airaway, 1988). Whereas to compare the perceptions among the different groups, various tests of significance such as the t-test and the chi-square test were used (Hogue,1982; Bhaskar, 1984; Mishra, 1991; Anjalwechi, 1994).

2.3.6 Study Outcomes

On the basis of the kind of data collected and analysis procedures adopted by the researchers, the findings of the studies were of three kinds. The first kind are those wherein

the studies had attempted to only arrive at a competency list '
(Starr, 1974; Cowan, 1984; Menon et al., 1983). In the second
kind, apart from identification, their priority ratings were
also obtained from the selected group of experts (Newton and
Brathwaite,1987; Airaway, 1988). The third of findings, reveal
whether there exists differences in perceptions among the
various groups or experts (Coates, 1985; Searles and Kudeki,
1986; Newton and Brathwaite, 1987; Airaway, 1988; Christensen,
1988; Stavros, 1989). Existence of difference in rating among
the teachers belonging to different categories such as
experience, training, nationality were also ascertained
(Sass-Lehrer, 1982; Jones, 1985; Vanhaitsma, 1987; Grymes,
1990; Abdulmalik, 1991).

Above all, these study findings have their relevance
especially for the reformulation of the teacher education
programmes both at the pre-service and in-service level.

2.4 IMPLICATIONS FOR THE STUDY

From the review it was clear that training has a
considerable effect on the enhancement of competence.

Browsing through the literature and researches it was
found that different techniques like structured interview,
direct observation, competency test, self-perception and
comparison method have been used for studying competencies.
Another method of competency assessment related to liking of
the teacher's teaching behaviour by the students. The
investigator decided that the method of self perception is
suitable for the present study, because DIET faculty members

are in a better position to self-evaluate their level of competencies and training needs. Rating scale could be an appropriate tool for measurement of self-perception of competencies.

Previous studies showed that the mailed schedule was received poorly, treated irresponsibly and filled in carelessly. Even after subsequent reminders the schedules were not likely to be mailed back if this procedure were to be used. Hence the investigator decided to administer the tool personally and get it filled by the respondent in a face to face situation.

CHAPTER   III

METHODOLOGY

This chapter deals with the method employed in the investigation, the selection of the sample, construction and description of the tools and procedure of data collection.

3.1 THE PRESENT STUDY

The present study is titled "Development of a Profile of Competencies Available and a Training Design for the Teacher Educators at the Elementary Level".

3.2 OBJECTIVES OF THE STUDY

The following objectives were set for the present investigation.

1. To identify competencies expected in teacher educators at the elementary level based on the national document "DIET GUIDELINES - 1989".

2. To study the extent of requirement of the identified competencies in terms of the perceptions of teacher educators at the elementary level.

3 To identify the profile of competencies presently available among teacher educators in terms of their self perception.

4. To identify the training needs and preferences of elementary teacher educators in terms of their self perception.

5. To study relevance of qualification and experiential background of teacher educators to the task they perform.

6. To study degree of professionalism shown by the teacher educators in planning and implementing inservice education programmes.

7. To formulate suggestive programmes of staff development for teacher educators at the elementary level.

3.3 HYPOTHESES FOR THE STUDY

The following hypotheses have been stated for the study

1 There will be a significant trend obtainable from the perceptions of the DIET faculty members with respect to the "extent of requirement" of each of the competencies identified.

2. There will be a significant trend obtainable from the perceptions of the DIET faculty members with respect to the extent to which each of the competencies is possessed by them.

3. The faculty members working in a particular wing of the DIET, in their perception, would possess the competencies identified for serving in that wing.

4. There would be a significant trend obtainable from the perceptions of the DIET faculty members with respect to the training needs on each of the competencies identified.

5. The faculty members working in a particular wing of the DIET would not perceive training as required on the competencies identified for the wing.

6. There is no significant preference for the venue of a training programme among the DIET faculty members.

7. There is no significant preference for a particular duration for a short term training programme among the DIET faculty members.

8. There is no significant preference for a particular duration for a long term training programme among the DIET faculty members.

9. There is no significant preference for a particular type of programme among the DIET faculty members.

3.4 METHOD OF STUDY

This study is primarily designed to find out

    1. the competencies required

    2. the competencies possessed and

    3. the training needs

of the DIET faculty members according to their own perception and the findings from the observation of training programme. For this purpose the technique of rating on a five point scale was employed and views of DIET faculty through interviews were collected. Observation was done on a proforma developed for the purpose and documents were analysed to study some of the competencies.

3.5 SAMPLING AND SAMPLE SIZE

The study involved six DIETs drawn from three educational zones of Karnataka. Selection of DIETs was done randomly. Eventhough all the four zones were represented in the original sample, one of the zones could not be covered due to time constraint.

Further, for the purpose of data pertaining to the competencies 'required', and those 'available' among teacher

educators; and the identification of 'training needs and preferences' DIET faculty members from three of the six DIETs constituted the sample. All teacher educators who were present when the investigator visited the DIETs gave their responses on the predesigned tools. The sample size under the three DIETs is as follows.

Table 1: DIETwise Sample Breakup

Sl No	DPEP District	No. of DIET faculty members covered under the study
1	Belgaum	12
2	Mandya	14
3	Raichur	13
	Total	39

Table 2: DIETwise Sample Breakup for Observation

District	Number of DIET faculty members covered under the study	Total no. of observations
Belgaum	3	5
Dharwad	8	12
Bangalore (Rural)	9	9
Mysore	7	7
Shimoga	5	5
Chickmaglur	4	4
Total	36	42

The DIETs were also visited for undertaking observation of teacher educators 'in action' during a training programme and for document analysis. This was to achieve the objective of studying the degree of professionalism shown by the teacher educators in planning and implementing inservice teacher education programmes.DIET wise sample break-up for observation is given in the following table. It can be seen that eventhough 36 teacher educators were observed in-action, the total number of observations were 42 since in two DIETs some of the teacher educators were observed twice.

3.6 DEVELOPMENT OF THE TOOLS

The DIET faculty members are expected to perform certain functions as indicated in the DIET Guidelines (MHRD, 1989). The functions are listed out in the guidelines on a wing basis. The investigator could identify the "number of functions" expected to be performed under each wing. Wingwise functions is given in the appendix.

Table 3: Number of Wingwise Functions

Sl. No.	Name of the Wing	Number of Functions
1	Pre-Service Teacher Education (PSTE)	8
2	Work Experience (WE)	6
3	District Resource Unit (DRU)	9
4	Inservice, Field Interaction, Innovation, Coordination (IFIC)	9
5	Curriculum, Material Development and Evaluation (CMDE)	4
6	Educational Technology (ET)	5
7	Planning and Management (P&M)	8
	Total	49

On the basis of the functions, competencies were listed under each wing.

A close scrutiny of the competencies revealed that there were repetitions of certain competencies when taken wingwise. This was because certain functions were commonly applicable to more than one wing of a DIET.

In the next stage the overlaps were removed and a final set of eighty competencies were arrived at. The set of eighty competencies were classified under nine categories with regard to specific areas of functions as shown in the following Table 3.

Table 4: Total Number of Competencies under Different Categories

Sl. No.	Name of the Wing	Number of Functions
1	Competencies in teaching	23
2	Competencies in guidance and counselling	2
3	Competencies in institutional design	11
4	Competencies in designing training programmes	8
5	Subject related competencies	17
6	Competencies in research and data processing	5
7	Competencies in evaluation	5
8	Competencies in dissemination	3
9	Miscellaneous	6
	Total	80

3.7 DESCRIPTION OF THE TOOL

The tools used for data collection consists of rating scales an observation schedule, and proforma for document analysis and an interview schedule.

Observation Schedule

The competencies which could be observed during teaching (training) were listed and the components under each competencies were identified and were rated against a five point scale, viz. 1, 2, 3, 4, 5. The schedule is given in the appendix.

Document Analysis

The competencies which could be rated by analysing the documents available in the DIET were listed and the components under each competencies were identified for rating against a five point scale, viz. 1, 2, 3, 4, 5.

Interview Schedule

An interview schedule was used to collect the information regarding the DIET, the training programmes and the perceptions of the DIET faculty.

3.8 PROCEDURE OF DATA COLLECTION

The respective DIETs were contacted and information as to when the training programmes were being held was collected (a copy of the letter enclosed in Appendices). The DIETs and the venues of training programmes were visited. The observations were made personally by the observer and the DIET faculty were rated on an observation proforma. The documents essential were collected from the DIETs and were

analysed for the respective competencies. Interviews were held with the DIET faculty members and principals.

The data could not be collected from the entire population of the DIET faculty members due to the absence of faculty members from the DIET in connection with pre-scheduled training programmes. Hence, the actual size of the sample is less than the aggregate size of the faculty in the DIETs selected.

Details of analysis, interpretation and discussion have been provided in the subsequent chapters.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with the analysis and interpretation of data. As mentioned in chapter III, the present study has different objectives and hypotheses, the data collected relating to these objectives are analysed by adopting different statistical methods, the analysis and interpretation was done according to the objectives and the hypotheses.

4.1 ARRIVING AT A COMPREHENSIVE LIST OF COMPETENCIES

EXPECTED IN TEACHER EDUCATOR AT ELEMENTARY LEVEL

Objective 1: To identify the competencies expected in teacher educators at the elementary level based on the national document "DIET GUIDELINES 1989".

Taking into consideration the functions expected to be performed by the DIET faculty members as per the national document "DIET GUIDELINES 1989", a tentative list of competencies which would be required for performing those functions was arrived at. Starting from this tentative list, the procedure of arriving at a comprehensive list of eighty competencies is explained in detail in the following. The DIET faculty members are expected to perform certain functions as indicated in the DIET GUIDELINES (MHRD, 1989). The functions are listed in the guidelines on a wing basis. The investigator could identify the "number of functions" expected to be performed under each wing as shown in the

table below. The list of wingwise functions is given in the appendix.

Table 5: Number of Wingwise Functions

Sl. No.	Name of the Wing	No of functions
1	Pre-Service Teacher Education (PSTE)	8
2	Work Experience (WE)	6
3	District Resource Unit (DRU)	9
4	In-service, Field Interaction, Innovation, Coordination (IFIC)	9
5	Curriculum, Material Development and Evaluation (CMDE)	4
6	Educational Technology (ET)	5
7	Planning and Management (P&M)	8
	Total	49

On the basis of the functions, competencies were listed out under each wings as shown in the table.

Table 6: Number of Wingwise Competencies

Sl. No.	Name of the Wing	No. of functions
1	Pre-Service Teacher Education (PSTE)	33
2	Work Experience (WE)	13
3	District Resource Unit (DRU)	20
4	In-service, Field Interaction, Innovation, Coordination (IFIC)	34
5	Curriculum, Material Development and Evaluation (CMDE)	12
6	Educational Technology (ET)	10
7	Planning and Management (P&M)	17
	Total	139

40

A close scrutiny of the functions revealed that there were overlaps in certain competencies when taken wingwise. This was because certain functions were commonly applicable to more than one wing of a DIET.

In the next stage the overlaps were removed and a final set of eighty competencies were arrived at. The set of eighty competencies were classified under nine categories with regard to specific areas of functions as shown in the following table.

Table 7: Total Number of Competencies Under Different Categories

Sl. No.	Categories	Total No. of competencies
1	Competencies in teaching	23
2	Competencies in guidance and counselling	02
3	Competencies in institutional design	11
4	Competencies in designing training programmes	08
5	Subject related competencies	17
6	Competencies in research and data processing	05
7	Competencies in evaluation	05
8	Competencies in dissemination	03
9	Miscellaneous	06
	Total	80

This list of eighty competencies was used to procure the self perception of the DIET faculty members regarding

(1) extent of requirement of various competencies among the DIET faculty, (2) competencies presently available among the DIET faculty, and (3) training needs of the DIET faculty. A rating scale was considered to be the appropriate tool to collect data for the study. In the words of Bars et al (1953), "Rating is a term applied to expression of a opinion or judgements regarding some situation object or character. Opinions are usually expressed on a scale of values".

In this study the final list of eighty competencies could be taken as the basis against which the DIET faculty members could provide information as to (1) whether they perceive the competencies as required, (2) whether they possess these competencies, and (3) whether they need training for the development of these competencies.

Since this did not involve any data collection, no analysis or interpretation has been provided in this section with respect to this objective.

4.2 EXTENT OF REQUIREMENT OF COMPETENCIES

Objective 2: To study the extent of requirement of the identified competencies in terms of the perceptions of teacher educators at the elementary level.

Even though the eighty competencies were derived from the 'DIET GUIDELINES 1989' the perception of DIET faculty members with regard to their requirement needed to be studied. This could be obtained from the frequency of responses towards each competencies on a four point rating

of DIET faculty members consider that all the eighty competencies listed by the investigator as required for a DIET faculty member. However nine competencies (6, 12, 12, 22, 45, 47, 49, 52 and 75) were such that they did not show any significant trend in the perception of the DIET faculty members with respect to the extent of their requirement. This would mean that, eventhough the DIET faculty members considered the competencies as required, as a group they were not sure as to how often the competencies were required by them while discharging the functions of a DIET. The competencies which did not show significant trend are, competency to;

1. Communicate effectively

2. Maintain harmonious relationship with students

3. Use effective feedback

4. Classroom management

5. Organise competency based teaching

6. Train teachers in continuous and comprehensive evaluation

7. Train teachers in learner centered education

8. Train teachers in activity based teaching, and

9. School mapping

In the light of the above, hypothesis 1 is accepted for seventy one out of a total list of eighty competencies. In other words a significant trend obtainable in seventy one competencies from the perceptions of the DIET faculty members with respect to the extent of their requirement. It can be seen from the table 4 that none of the competencies

from among the list of eighty competencies presented to the DIET faculty, were considered as required daily. This could largely be due to the fact that no competency is required for all the DIET faculty irrespective of their affiliation to a particular wing because the functions from which competencies are derived are not performed daily by all the wings.

Taking into account the category of response "frequently required" it can be observed that ten competencies (1, 2, 8, 11, 16, 38, 40, 43, 53, 62) were considered as frequently required by a significant number of the DIET faculty members, competency to,

1. Organise the teaching content

2. Design instructional material

3. Individualise instruction

4. Use teaching aids (other than graphic/projected aids)

5. Provide work experience

6. Plan training programme

7. Co-ordinate training programme

8. Evaluate a training programme

9. Train teachers in universalisation of elementary education

10. To record data

The remaining competencies showed a significant trend in the response of DIET faculty members in that they perceived the competencies as "Occasionally Required". Further four competencies (4, 38, 40 and 62) which were

perceived as "Frequently Required" by a significant number of DIET faculty were also perceived as "Occassionally Required" by a significant number of DIET faculty. In other words these competencies showed a significant trend under two categories of responses. The competencies are,

1. To design instructional material

2. To plan training programme

3. To co-ordinate training programme

4. To record data.

Remaining sixty three competencies are perceived as "Occassionally Required".

4.3 DEGREE OF PROFESSIONALISM SHOWN BY THE TEACHER EDUCATORS

Objective. To study the degree of professionalism shown by the teacher educators in planning and implementing inservice teacher education programmes.

For the realisaton of the above objective, the method employed was of observation of training programmes in action, Document Analysis and Interview of teacher educators The data and the relevant interpretations from them have been presented in the sections below

Competencies Observed among Teacher Educators

The competencies observed during the training programme among the DIET faculty were rated by the investigator on a five point scale on a continuum of low to high and zero was used for showing that the competency/component was not found. Data have been presented in the table below.

Table 9: Competencies Observed among Teacher Educators during Training

Competencies and their components	0 %	1 %	2 %	3 %	4 %	5 %
1. Competency to organising teaching/training content.						
- accuracy of teaching content.	14	-	-	17	12	57
- sequence of organisation (simple to complex, known to unknown, etc.).	15	-	2	9	14	60
- extent to which objectives are attained.	15	5	7	33	33	7
2. Competency to design learning experiences.						
- learning experience appropriate to ability of the learning.	15	-	9	9	36	31
- learning experience leads to attainment of objectives.	14	5	7	31	36	7
- appropriateness of the time provided.	14	-	2	19	26	39

Competencies and their components	0 %	1 %	2 %	3 %	4 %	5 %
3. Competency to design activity based learning.						
- clarity of instructions.	73	-	-	5	5	17
- sufficiency of material.	76	-	-	2	5	17
- appropriateness of formats and worksheets.	93	-	-	2	-	5
- relevance of the activity to the group and content.	86	-	-	2	5	7
4. Competency to communicate effectively.						
a. Verbal						
- clarity and fluency in speech.	20	-	-	2	14	64
- use of appropriate language.	22	-	-	-	14	64
- delivery (tone, voice, pitch).	20	-	2	12	2	64
- use of appropriate media and materials.	17	-	9	9	39	26
- structure and delivery of questions.	15	2	9	9	24	41
- structure and delivery of explanation.	15	-	5	9	21	50
- structure and delivery of illustration.	28	5	5	5	21	36
- structure and delivery of introduction.	36	-	5	7	33	19
- structure and delivery of summarising.	81	-	-	2	5	12

Competencies and their components	0 %	1 %	2 %	3 %	4 %	5 %
b. Non-verbal						
- selects appropriate medium for communication.	4	-	5	24	36	21
- warmth, empathetic.	16	2	9	9	19	45
- uses appropriate body language.	15	-	2	9	19	55
- receives feedback.	36	5	9	26	17	7
5. Competency to individualize instruction.						
- gives attention to all individuals in the group.	15	5	7	33	33	7
- identifies needs and interests of every individual.	17	9	14	29	26	5
- able to extend help when needed.	13	-	5	19	39	24
- encourage questions and queries from trainees.	15	7	7	21	29	21
- gives guidance whenever and wherever necessary.	15	2	14	17	31	21
- takes interest in individual development.	21	7	14	36	17	5
6. Competency to promote student participation in learning process.						
- secures and sustains pupil's attention through varied stimuli.	2	5	12	26	29	26
- invites and encourages student participation in discussion.	3	9	9	19	29	31
- takes up trainee-centered, activity-based teaching.	3	12	14	36	26	9
- increase pupil's participation by use of verbal and nonverbal cues and reinforces.		5	14	14	36	29

Competencies and their components	0 %	1 %	2 %	3 %	4 %	5 %
7. Competency to use Audio-Visual aids.						
- preparation for using A-V aids such as arrangement of equipments and material, seating arrangement, etc.	84	-	2	9	5	-
- preparation of the group for audio-visual experience.	76	-	5	5	5	9
- visibility and audibality to the group.	14	-	2	7	36	41
- suitability of explanation at the time of using.	14	2	5	12	31	36
- involvement of the participants while using.	19	5	5	21	29	21
- skillful in using the projector.	93	-	-	2	5	-
- appropriateness of display (of charts).	95	-	-	-	5	-
- summarising the experience.	91	-	-	7	2	-
8. Competency to provide effective feedback.						
- identifies learning difficulties.	36	-	21	19	24	-
- appropriateness of the verbal/non-verbal reinforces.	39	-	2	24	21	14
- use of positive reinforces.	37	2	5	14	21	21
- use of negative reinforces.	36	2	12	12	21	17

Competencies and their components	0 %	1 %	2 %	3 %	4 %	5 %
9. Competency to maintain harmonious relationship with trainees.						
- warmth.	3	5	12	12	19	50
- students are keen to participate.	2	5	7	26	41	19
- avoids arguments to discourage antagonism between teacher and student.	31	5	7	9	41	7
- reinforces attending behaviour.	1	12	9	19	38	21
- interacts with people effectively.	1	7	9	17	33	33
10. Competency to use techniques of motivation.						
- able to arouse interest/curiosity among trainees.	6	7	5	36	29	17
- relates the task to one's previous experience.	32	-	14	14	19	21
- traces historical development.	86	-	-	2	12	-
- able to generate greater participation.	4	12	5	24	31	24
- can evaluate the level of motivation of students.	87	12	19	33	14	9
11. Competency to provide work experience.						
- appropriateness of the activity.	98	-	-	-	-	2
- activity distributed such that all trainees are able to participate or do it individually.	98	-	-	-	-	2
- able to perform the activity himself.	98	-	-	-	-	2
12. Competency to analyze learning difficulties.						
- diagnose and identify the difficulties.	1	7	33	26	21	2

Competencies and their components	0 %	1 %	2 %	3 %	4 %	5 %
13. Competency to take remedial action.						
- provide appropriate instruction with respect to trainee difficulties after diagnosis.						
- organise remedial experience.			Nil			
- decide the procedure.						
- remedial action appropriate to task and trainee.						
- undertakes assessment of learning.						
14. Competency to assess student performance.						
- checks understanding at the end of·development of each teaching point.	61	7	14	31	12	17
- ascertain the realization of overall objectives.	26	10	26	26	7	5
- identifies learning difficulties.	19	7	31	19	24	-
- able to decide criteria for assessment.	83	-	-	5	12	-
- uses appropriate tools for assessing student performance.	96	-	-	2	2	-
- knows procedure of organisation (sitting arrangement, administering test, collecting responses, etc.)	100	-	-	-	-	-
- able to individualise assessment.	88	-	2	5	5	-

Competencies and their components	0 %	1 %	2 %	3 %	4 %	5 %
15. Competency to identify and use locally available material.						
- material used in locally and easily available.	64	-	2	-	10	24
- cost effectiveness (low cost).	64	-	-	-	12	24
- material used is appropriate to the task.	65	-	-	2	2	31
16. Competency to arrange co-curricular activity.						
- aware of sports and games facilities available.	96	-	-	-	2	2
- announces the rules of the activity/game.	96	-	-	-	2	2
- activity planned systematically.	96	-	-	-	2	2
- appropriate use of the resources (human/material).	95	-	-	-	-	5
- suitability of the activity.	95	-	-	-	-	5
17. Competency to organise field trips, projects and workshops.						
- appropriateness of the place and arrangement.	93	-	-	-	-	7
- capable of managing finances.	93	-	-	-	2	5
- ensure all necessary documents are available.	96	-	-	-	2	2
- provide suitable instruction/direction	93	-	-	-	-	7
- able to accommodate trainee needs.	93	-	-	-	-	7
- familiarity with the trainees.	94	-	-	2	2	2
- evaluates the effectiveness of the program.	94	-	2	2	-	2

Competencies and their components	0 %	1 %	2 %	3 %	4 %	5 %
18. Competency of classroom management.						
- reinforces attending behaviour.	5	5	7	12	50	21
- reacts to misbehaviour.	5	5	2	26	50	12
- uses nonverbal behaviour to inhibit development of a potential problem.	31	-	5	19	38	7
- appropriateness of techniques used.	0	12	2	19	48	19
19. Competency to display teaching materials systematically.						
- teaching materials shown at appropriate time.	55	-	-	5	2	38
- teaching materials visible to all trainees.	55	-	-	7	7	31
- sufficiency of the duration of display.	52	-	-	5	5	38
20. Competency to repair and maintain teaching aids (including sports equipments).						
- keep teaching aids and equipment in working condition.						
- storage and accessibility of material.	Nil					
- able to repair the equipment, if out of order.						
21. Competency to maintain a library.						
- maintains systematic issuing and returning procedure.	Nil					
- cataloging of books.						

Competencies and their components	0 %	1 %	2 %	3 %	4 %	5 %
22. Competency to maintain a science lab.						
- maintains records for procurement.	Nil					
- able to repair and maintain equipments.						
- plan of the lab.						
- accessability and storage of material.						
23. Competency to maintain psychology lab.						
- maintains equipments (tests) in the lab.	Nil					
- arrangement for undertaking testing/demonstration.						
- maintains records.						
24. Competency to maintain Audio-Visual aids.						
- storage and axcessibility of A-V aids.	Nil					
- A-V aids kept in working condition.						
- utilise and maintain records.						

Competencies and their components	0 %	1 %	2 %	3 %	4 %	5 %
25. Competency to plan training programme.						
- specifies objectives.	57	10	5	14	12	2
- time scheduling.	60	2	2	12	14	10
- contingency management.	60	-	2	-	21	17
- utilization of resources.	57	2	5	5	24	7
- sufficiency of material/facility.	64	2	5	7	12	10
- able to coordinate.	61	2	2	-	21	14
- able to give feedback and evaluate.	59	7	12	12	10	-
- monitoring of the programme.	59	2	12	5	12	10
26. Competency to coordinate training programme.						
- allocation of tasks.	64	-	-	5	12	19
- communication to people.	64	2	-	5	12	17
- management of time and resources.	63	-	2	7	14	14
27. Competency to monitor a training programme.						
- assessing the implementation of activities of the programme in relation to plan.	60	-	14	12	12	2
- identifying deficiencies.	60	7	17	7	7	2
- taking corrective measures.	61	14	7	9	7	2

Competencies and their components	0 %	1 %	2 %	3 %	4 %	5 %
28. Competency to prepare practical works for evaluation.						
- originality and variety of practical work.	98	-	-	2	-	-
- appropriateness of the organisation of practical works for evaluation.	98	-	-	2	-	-
- adequacy.	98	-	-	2	-	-
- clarity and appropriateness of instruction.	98	-	-	-	-	2
- provides scope to practice and apply knowledge and skills.	98	-	-	-	2	-
29. Competency to use evaluation tools.						
- gives proper instruction.	95	-	-	-	5	-
- appropriateness of sitting arrangement, classroom environment.	96	-	-	2	2	-
- gives adequate time for responding to the test.	95	-	-	-	5	-
30. Competency to develop and organise a hobby club.						
- orientation of the members selected.	Nil					
- organisation of the activities of the club.						
- budgeting.						

63

Competencies and their components	0 %	1 %	2 %	3 %	4 %	5 %
31. Competency to maintain a farm/garden.						
- plan of farm/garden.	98	-	-	-	-	2
- activities planned for the farm/garden.	98	-	-	-	-	2
- frequency of watering, etc.	98	-	-	-	-	2
32. Competency to maintain a resource room.			Nil			
- maintains stock registers.						
- knowledge of resources						
- ability to utilise the resources.						
- arrangement of resources.						
33. Competency to organise group activity.						
- appropriateness of the formation of the groups.	54	-	-	-	-	29	17
- clarity of instructions.	67	-	-	2	-	10	21
- sufficiency of instructions.	69	-	-	2	-	12	17
- sufficiency of time and material.	69	-	-	-	-	14	17
- relevance of the activity to the group, content and objectives.	69	-	-	2	-	10	19
- adequacy of guidance and supervision.	68	-	5	5	5	17

34. Competency to use alternate teaching methodologies (check list).

Methods	Used very often	Used often	Used rarely	Never used
Lecture method	-	-	2	86
Demonstration method	-	5	19	5
Activity-based teaching	-	10	43	7
Project method	-	-	-	-
Playway method	-	-	-	-
Concept-attainment approach	-	-	2	-
Guided-discovery method	-	-	-	-
Inductive-deductive method	-	7	7	-
Problem solving method	-	2	-	-
Group discussion method	-	26	29	5
Methods to develop creativity	-	-	-	-

Competencies Observed

1. Competency to organising teaching/training content

2. Competency to design learning experiences

3. Competency to design activity based learning

4 Competency to communicate effectively

5. Competency to individualise instruction

6. Competency to promote student participation in learning process

7 Competency to use audio visual aids

8. Competency to provide effective feedback

9. Competency to maintain harmonious relationship with trainees

10. Competency to use techniques of motivation

11. Competency to provide work experience

12. Competency to analyse learning difficulties

14. Competency to assess student performance

15. Competency to identify and use locally available material

16. Competency to arrange co-curricular activity

17. Competency to organise field trips, projects and workshops

18. Competency to classroom management

19. Competency to display teaching materials system-atically

25. Competency to plan training programme

26. Competency to coordinate training programme

27. Competency to monitor a training programme

28 Competency to prepare practical works for evaluation

29. Competency to use evaluation tools

31. Competency to maintain a farm/garden

33. Competency to organise group activity ¦

34. Competency to use alternate teaching methodologies

Competencies Not Observed

13. Competency to take remedial action

20. Competency to repair and maintain teaching aids

21 Competency to maintain a library

22. Competency to maintain a science lab

23. Competency to maintain psychology lab

24 Competency to maintain audio-visual aids

25. Competency to develop and organise a hobby club

32. Competency to maintain a resource room

It can be seen from the table that out of the thirty-four competencies identified for observation, eight competencies were not observed in the DIETs. This would mean that those functions for which the eight competencies were required were either not performed or performed partially by the DIET faculty.

Of the remaining twenty-six, the table would also reveal that a moderate to high level of competencies exists among the DIET faculty with respect to the following competencies. Interestingly many of the competencies are such that if a high level of the competencies exist on some components, there are other components on which the ability is moderate or low.

* Competency to organise teaching/training context

* Competency to design activity based learning

* Competency to communicate effectively

* Competency to individualise instruction

* Competency to promote student participation

* Competency to use audio-visual aids

* Competency to provide effective feedback

* Competency to maintain harmonious relationship with trainees

* Competency to use techniques of motivation

* Competency to assess student performance

* Competency to classroom management

Table 10: Analyses of Competencies from Documents/Material

Competency Analysed	0	1	2	3	4	5
I. Lesson Plan						
1. Competency in specification of objectives.				Nil		
- stated in behavioural terms.						
- adequate in terms of time.						
2. Competency to organise the teaching content.				Nil		
- accuracy of the content.						
- appropriateness to the objectives stated.						
- sequence of organisation.						
3. Competency to plan instruction.				Nil		
- adequacy of the components contained in the plan.						
- extensiveness and clarity.						

Competency Analysed	0	1	2	3	4	5
4. Competency to design learning experiences.						
- appropriateness to objectives.						
- appropriate to the level of the trainees.				Nil		
- appropriate in terms of allocation of time.						
II. Training Programme Plan						
5. Competency to identify training needs.						
- appropriateness of the source used.			2	4		
- appropriateness of the procedure used for need assessment.				2		
6. Competency to plan training programme.						
- specification of objectives.				1	3	
- time scheduling.					1	3
- budgeting and financial estimates.					1	3
- develop training materials.	1			2		
- developing feedback and evalution tools.			1	1		
- the correspondence with administration, colleagues, resource persons and participants.					2	2
III. Annual Calender						
7. Competency to prepare annual calender.						
- plan programmes for the year.						4
- time allocation.						4
- decision of target group.		1			3	

Competency Analysed	0	1	2	3	4	5
IV. School Mapping						
8. Competency to undertake school mapping.						
- record of resources available around the school.		1				
- appropriateness of the representation made.				1		
V. Micro Plan						
9. Competency to conduct micro planning.						
- accuracy						
- comprehensive						
VI. Instructional/Training Material						
10. Competency to design instructional material (Printed)						
- appropriate in terms of content, coverage and adequacy.						3
- style of presentation and language used.			;			3
- use of illustrations and examples.						2
- nature and appropriateness of activities with respect to objectives.					2	
- variety in instructional material.			3			

Competency Analysed	0	1	2	3	4	5
11. Competency to design activity based learning.						
- nature of activities planned.						
- relevance to trainees.						
- appropriateness with respect to time.						
- appropriateness with respect to objectives.						
12. Competency to individualize instruction.						
- training material appropriate to trainees.						
- training material allow self pacing of trainees.						
- scope for individual assessment.						
- individualised evaluation and reinforcement.						
13. Competency to develop locally relevant instructional material.						
- instructional material suitable to trainees and objectives.						1
- instructional material is local specific in terms of environment, culture, life style, etc.						1

Competency Analysed	0	1	2	3	4	5
14. Competency to design training material.						
- training material appropriate to content, coverage and is original.						
- training material adequate with respect to trainees abilities.						
- training material adequate with respect to time and objectives.						
- variety in training materials.						
15. Competency to design training material for distance mode.						
- appropriateness of training material for distance mode.						
- appropriateness for distance mode in terms of language, content coverage and increment.						
- scope for self evaluation and feedback.						
VII. Teaching Aids (Models/Specimens/Charts/Maps)						
16. Competency to prepare low cost teaching aids.						
- raw materials used easily available.					1	
- raw materials used locally available.					1	
- cost effectiveness.					1	
- aids appropriate to objectives and trainees.						1
- appropriateness of visuals in charts and maps.					1	

Competency Analysed	0	1	2	3	4	5

VIII. Audio-Visual Aids

17. Competency to develop audio programmes.

- programmes relevant with respect to content and objectives.
- able to develop own script.
- appropriateness of the format.
- quality of production.

18. Competency to develop graphic aids and projected aids.

- appropriateness of graphic aids with respect to purpose.
- appropriateness with respect to layout and drawing.
- appropriateness with respect to content and written material.
- appropriateness with respect to colouring, size and lettering.
- originality shown in making graphic/projected aids such as transparency, projected film strips, slides.

IX. Blue Print of a Test

19. Competency to prepare a blue print for evaluation.

- proper weightages given to content and domain
- familiarity with the matrix (format).

Competency Analysed	0	1	2	3	4	5
X. Evaluation Tools (Tests)/Material						
20. Competency to develop evaluation tools.						
- clarity of items.						1
- overall coverage and appropriateness with respect to objectives.					1	
- comprehensiveness of coverage of outcomes.				1		
- distribution over the entire training programme.		1				
21. Competency to develop items for an achievement test.						
- follows guidelines for item writing (clarity and appropriateness).					1	
- organises items in a sequential order.					1	
- variety and appropriateness of items for testing.					1	
22. Competency to prepare practical works for evaluation.						
- relevance of practical works prepared.						1
- distribution among all the trainees.						1
- provides scope to practice.			1			
- provides scope to apply knowledge and skills.				3		
- clarity and appropriateness of instruction.					1	
- provision for feedback to trainees during practice.		1				

Competency Analysed	0	1	2	3	4	5
XI. Records of Trainees						
23. Competency to keep records of student performance.						
- different aspects written in records.						
- regularity and adequacy of entries.						
- appropriateness and adequacy of the storage and retrieval system (filling, computerised).						
- record adequate to record all the entries.						
- simplicity of the format used.						
XII. Material for Follow-up Activities (Letters/Correspondence)						
- regularity of follow up.		1	1			
- suitability of time gap.		1		1		
- suitability of other material/proforma used for follow up.				1	1	
XIII. Research Report/Report of Programme						
25. Competency to undertake Action Research.						
- states problem clearly.						2
- objective stated clearly.						2
- follows proper methods and statistics.					2	
- action hypothesis stated and its testing.						2
- research undertaking relevant.						2
- construction of tools.					2	
- selection of appropriate tools.					1	1
- appropriateness of conclusion and implications drawn.						2

Competency Analysed	0	1	2	3	4	5
26. Competency to record data.						
- data systematically recorded.					1	1
- data recorded is meaningful.						2
27. Competency to tabulate data						
- table prepared appropriate for analysis.						2
- table is easy to read.						2
28. Competency to analyse and interpret data.						
- statistical techniques used appropriate.					1	1
- interpretation accurate.						2
- appropriateness of presentation of qualitative data.						2
29. Competency to report project activity/research.						
- objectives clearly stated.						2
- language used clear.						2
- adherence to technicalities.					1	1
- organisation of the chapter.					1	1
- appropriateness of indexing and references.			2			1

Competency Analysed	0	1	2	3	4	5
30. Competency to edit data/articles, reports.						
- brievity.						4
- representation of important elements.					1	3
- organisation of individual items presented.					1	3
31. Competency in documentation and dissemination.						
- data documented comprehensive and accurate.		2				
- procedures of updating data.		1				
- accessability of documental data.		2				
- dissemination through appropriate media.		1				
- regularity in dissemination.		1				
- appropriate to the target group.		1				

4.4 ANALYSIS OF COMPETENCIES FROM DOCUMENTS

Documents were another source for identification of competencies and the degree of professionalism shown by the teacher educators. The following documents were identified in the study for analysis, if they were available at the DIETs.

1. Lesson Plan

2. Training Programme Plan

3. Annual Calender

4. School Mapping

5. Micro Plan

6. Instructional/Training Material

7. Teaching Aids

8. Audio-Visual Aids

9. Blue Print of a Test

10. Evaluation Tools

11. Records of Trainees

12. Material for Follow-up Activities

13. Report of Research

14. Report of Programme

A total of thirty-one competencies were selected for analysis through the documents. Documents were collected from four out of the six DIETs and the table given shows the number of DIETs in which there were teacher educators who possessed a competency/its component ability.

It can be seen from the table that only eighteen competencies out of the total thirty-one competencies were

possible to analysed/were present If nonavailability of a document in a DIET is taken as indicating the absence of competency required for its preparation/maintainance, then the DIET faculty studied had only eighteen competencies Even among the eighteen, except four, the competencies were not found in the teacher educators of all the four DIETs studied.

General Observations

The following observations have been made from the interviews held with the teacher educators regarding the organisation of teacher education programmes with a view to bring out the degree of professionalism shown in the organisation of such programmes.

1. Planning of teacher education programmes are done in terms of the themes/topics on which training is to be imparted. Thus identified, the programmes are distributed across blocks. For example, six content programmes to be organised for pair of blocks, which are adjacent to each other.

2. Thus planned, the calender of programmes is sent to the Block Education Officers who in turn are asked to depute teachers. A clerk in the BEO's office maintains a record of teachers deputed for training.

3. There is no criteria for specification of venue, duration of training or participants and their number other than convenience.

4. Normally,a sessionwise time table is prepared eventhough there may not be any logic in organising the sessions except the convenience of trainers and availability of guest resource persons. Topics are assigned to resource persons as per their specialisation/speciality and not on the basis of an analysis of inputs required. Mostly the objectives of training are not articulated and specified. Maximum difficulty is faced by the coordinator when a resource person does not turn-up since there is hardly any contingency plan for such occassions.

5. Training programmes are usually designed externally and the DIET faculty consider themselves as implementers/ organisers of training. Very few programmes are designed internally.

6. Training experience of organising one training does not get transferred to another, even if it is useful. For example, the role play conducted in gender sensitivity training, though found useful is not even considered while implementing another training.

7. Instructional/training material are conspicuously absent in the teacher education programmes. Only material used are those supplied from external sources such as the SOPT training material.

8. The audio-visual aids are used quite meagerly. The teacher educators rely more on transacting the training inputs orally.

9. Some teacher educators were found to be lacking in an imaginative use of a conventional medium such as blackboard.

10. Some activities are organised with an intention of keeping the trainees occupied rather than with any concern for its systematic organisation for achieving the objectives.

11. The monitoring and supervision of activities/inputs in training needs to be more purposeful.

12. Evaluation for ascertaining the attainment of training programme objectives is largely absent, where present, it is a mere formality. Usually it is organised at the end in the form of impressions to be shared by one or two trainees.

13. The principal is unable to attend every programme or visit them occassionally. The programmes are simply assigned to faculty members. As a result, he is unable to provide guidance for improvement.

14. Most lady teacher educator are not the academic coordinators of training. The reason given is that they cannot go out and make the arrangements needed.

15. Documentation of training is mostly absent. Reports are written by the trainees as daily proceedings, usually presented on the subsequent day. These daily proceedings are compiled as reports.

16 Follow-up is not a part of the training programme.

4.5 PROFILE OF COMPETENCIES PRESENTLY AVAILABLE

Objective 3 : To identify the profile of competencies presently available among the teacher educators in terms of their self-perception.

The perception regarding the possession of competencies by the DIET faculty members was proposed to be studied in this investigation. This could be obtained from the frequency of responses based on self perception towards each competencies on a four point rating scale with cues, 'highly competent', 'fairly competent', 'less competent' and 'not competent'. The responses obtained have been analysed at two levels,

(1) Taking the responses of all the DIET faculty members as a single group with respect to all the eighty competencies;

(2) Classifying the DIET faculty members wingwise and taking responses with respect to only those competencies which pertain to that wing. Analysis and interpretation in this regard have been presented below.

4.5.1 Overall perception of the teacher educators of the Extent of Possession of each of the Eighty Competencies.

Hypothesis 2

There would be a significant trend obtainable from the perceptions of the DIET faculty with respect to the extent to which each of the competencies is possessed by them.

The chi-square test was used to obtain the trend of the responses of the DIET faculty members with regard to each of the eighty competencies.

Further, to find out the frequency expected for
significance at 0.05 level with one degree of freedom, the
chi-square test to test the probabilities was used. The
result showing the significant trend and the significant
frequencies is presented in the table below.

Table 11: Trend obtained from the perceptions of all the
DIET faculty members with respect to the
'Extent of Competencies Possessed' on each of
the Eighty Competencies

Competency Number	Highly compe- tent	Fairly compe- tent	Less compe- tent	Not compe- tent	x^2
1	13	22*	04	0	29.61538*
2	10	23*	06	0	29.20513*
3	08	18*	12	1	15.66667*
4	06	19*	14	0	21.82051*
5	06	22*	10	1	24.69231*
6	09	22*	07	1	24.07692*
7	09	20*	09	1	18.74359*
8	08	20*	10	1	18.94872*
9	09	23*	07	0	28.58974*
10	06	21*	09	3	19.15385*
11	04	27*	07	1	42.53846*
12	06	29*	04	0	52.58974*
13	03	26*	08	2	38.23077*
14	05	25*	07	2	33 10256*
15	06	26*	10	3	16.89744*
16	04	21*	13	1	25.30769*
17	03	27*	08	1	43.35879*
18	02	24*	13	0	37.82051*
19	03	26*	09	1	39.66667*
20	08	27*	04	0	43.97436*
21	11	24*	04	0	34.12821*
22	08	20*	10	1	18.94872*
23	05	23*	10	1	28.17949*
24	04	21*	13	1	25.30769*
25	03	26*	09	1	39.66667*
26	01	23*	13	2	33.10256*
27	02	25*	10	2	36.17949*
28	05	26*	08	0	39.46154*
29	06	23*	10	0	29 20513*
30	04	21*	12	2	23.05128*
31	04	23*	10	2	27.56410*
32	04	17*	16*	2	18.94872*
33	03	17*	14	5	14.23077*
34	04	17*	11	7	09.717949
35	03	17*	13	6	12.58974*
36	04	20*	11	4	17.71795*

Competency Number	Highly competent	Fairly competent	Less competent	Not competent	X^2
37	06	21*	10	2	20.58974*
38	06	20*	11	2	20.58974*
39	06	20*	11	2	18.53846*
40	04	23*	08	4	25.10256*
41	08	25*	04	2	33.71795*
42	04	21*	09	5	18.74359*
43	04	23*	11	1	29.41026*
44	06	25*	06	2	32.89744*
45	08	21*	09	1	21.20513*
46	08	17*	12	2	12.38462*
47	08	20*	09	2	17.30769*
48	05	28*	05	1	46.64103*
49	04	28*	07	0	48.07692*
50	03	27*	08	1	43.35897*
51	05	20*	13	1	22.02564*
52	06	24*	08	1	30.43590*
53	08	21*	10	0	23.05128*
54	10	22*	05	7	23.87179*
55	07	18*	14	1	15.87179*
56	08	26*	03	2	38.23077*
57	06	20*	11	2	18.53846*
58	06	20*	09	4	15.66667*
59	05	20*	12	2	19.76923*
60	04	25*	10	0	37.00000*
61	05	22*	12	0	27.97436*
62	04	23*	09	3	26.12821*
63	06	16*	16*	1	17.30769*
64	05	21*	12	1	23.66667*
65	06	22*	09	2	23.05128*
66	07	21*	09	2	19.97436*
67	05	26*	06	2	37.00000*
68	01	27*	09	2	44.58974*
69	03	25*	08	3	33.51282*
70	05	23*	10	1	28.17949*
71	05	23*	10	1	28.17949*
72	08	21*	09	1	21.20513*
73	09	19*	11	0	18.74359*
74	05	23*	09	2	26.53846*
75	04	24*	11	0	34.12821*
76	05	26*	08	0	39.46154*
77	06	24*	08	1	30.43590*
78	06	19*	13	1	19.15385*
79	05	22*	11	1	25.71795*
80	06	26*	07	0	39.05128*

* - Significant at 0.05 level
(Please refer to the Appendix, for the exact statement of competencies corresponding to the competency number provided in the table.)

The table reveals that, with regard to the 'Highly Competent' column it is clear that none of the competencies revealed a significant trend. This would mean that none of the faculty members were either highly competent or not competent in all the eighty competencies as in their own perception. Significant responses were obtained on all the eighty competencies under the category 'Fairly Competent' This would mean that as per the perception of the DIET faculty members, they were fairly competent on all the eighty competencies.

In the light of the above, hypothesis 2 is accepted for all competencies.

Taking into account the category of response 'Less Competent', it can be observed that only Competency (32), i.e. to "maintain science lab" was responded significantly This would mean that all the DIET faculty members were either less competent or fairly competent on this competence. Since response on this competency was significant for both the category. The findings can be summarised as follows,

1. Not Competent   Nil

2. Less Competent   Nil

3 Fairly Competent   All the eighty

4. Highly Competent   Nil

4.4.2 Wingwise Perception Regarding Possession of Competencies

The hypothesis framed for studying the wingwise possession is as follows;

Hypothesis 3: The faculty members working in a particular wing of the DIET, in their perception, would posses the competencies identified for serving in that wing.

The frequency of the response of the DIET faculty members corresponding to particular wing towards those competencies identified under that wing are tabulated under two heads, viz., 'Not competent' and 'Competent'. The category 'competent' is formed as a result of pooling the responses under the categories 'Highly Competent', 'Fairly Competent' and 'Less Competent'.

The frequencies and percentages for all the wings are as following.

Table 12: Frequency and percentage of responses on possession of competencies by the DIET faculty members of the PSTE wing with regard to competencies identified under that wing

Sl. No.	Competency No.	Not competent		Competent	
1	1	0	(0)	19*	(100)
2	2	0	(0)	19*	(100)
3	3	1	(5.26)	18*	(94.74)
4	5	0	(0)	19*	(100)
5	6	1	(5.26)	18*	(94.74)
6	7	0	(0)	19*	(100)
7	8	1	(5.26)	18*	(94.74)
8	9	0	(0)	19*	(100)
9	10	1	(5.26)	18*	(94.74)
10	11	1	(5.26)	18*	(94.74)
11	12	0	(0)	19*	(100)
12	13	1	(5.26)	18*	(94.74)
13	14	1	(5.26)	18*	(94.74)
14	15	1	(5.26)	18*	(94.74)
15	17	1	(5.26)	18*	(94.74)
16	19	1	(5.26)	18*	(94.74)
17	21	0	(0)	19*	(100)
18	22	0	(0)	19*	(100)
19	23	0	(0)	19*	(100)
20	24	1	(5.26)	18*	(94.74)
21	25	0	(0)	19*	(100)

Sl. No.	Competency No.	Not competent		Competent	
22	29	0	(0)	19*	(100)
23	32	0	(0)	19*	(100)
24	33	1	(5 26)	18*	(94.74)
25	34	3	(15.79)	16*	(84.21)
26	35	3	(15.79)	16*	(84 21)
27	61	6	(31.57)	13	(68.42)
28	66	0	(0)	19*	(100)
29	68	3	(15.79)	16*	(84.21)
30	69	2	(10.52)	17*	(89.74)
31	70	1	(5 26)	18*	(94.74)
32	71	0	(0)	19*	(100)
33	18	0	(0)	19*	(100)

(* indicates majority of response and the number in brackets indicates percentages.)

The table reveals that, apart from the competency no. 61, majority of the faculty members of the PSTE wing perceived themselves as competent. Hence the hypothesis is accepted.

Table 13: Frequency and percentage of responses on possession of competencies by the DIET faculty members of the WE wing with regard to competencies identified under that wing

Sl. No.	Competency No.	Not competent		Competent	
1	4	0	(0)	03*	(100)
2	6	0	(0)	03*	(100)
3	16	0	(0)	03*	(100)
4	26	2	(66.66)	01	(33.33)
5	27	0	(0)	03*	(100)
6	28	0	(0)	03*	(100)
7	36	0	(0)	03*	(100)
8	58	0	(0)	03*	(100)
9	67	0	(0)	03*	(100)
10	70	0	(0)	03*	(100)
11	76	0	(0)	03*	(100)
12	77	0	(0)	03*	(100)
13	78	0	(0)	03*	(100)

(* indicates majority of response and the number in brackets indicates percentages.)

From the above table it can be seen that, apart from the competency no. 26, majority of the faculty members of the WE wing perceived themselves as competent. Hence the hypothesis is accepted for those competencies

Table 14: Frequency and percentage of responses on possession of competencies by the DIET faculty members of the DRU wing with regard to competencies identified under that wing

Sl. No.	Competency No.	Not competent		Competent	
1	4	0	(0)	05*	(100)
2	23	0	(0)	05*	(100)
3	26	0	(0)	05*	(100)
4	27	0	(0)	05*	(100)
5	28	0	(0)	05*	(100)
6	31	0	(0)	05*	(100)
7	36	0	(0)	05*	(100)
8	40	1	(20)	04*	(80)
9	41	0	(0)	05*	(100)
10	43	0	(0)	05*	(100)
11	62	0	(0)	05*	(100)
12	63	0	(0)	05*	(100)
13	64	1	(20)	04*	(80)
14	66	1	(20)	04*	(80)
15	67	0	(0)	05*	(100)
16	70	0	(0)	05*	(100)
17	72	2	(0)	05*	(100)
18	73	0	(0)	05*	(100)
19	76	0	(0)	05*	(100)
20	6	0	(0)	05*	(100)

(* indicates majority of response and the number in brackets indicates percentages.)

From the above table, it could be seen that all the DRU wing faculty members are competent in all the competencies. Hence the hypothesis is accepted.

Table 15: Frequency and percentage of responses on possession of competencies by the DIET faculty members of the P&M wing with regard to competencies identified under that wing

Sl. No.	Competency No.	Not competent		Competent	
1	6	0	(0)	04*	(100)
2	13	0	(0)	04*	(100)
3	23	0	(0)	04*	(100)
4	28	0	(0)	04*	(100)
5	43	0	(0)	04*	(100)
6	54	1	(25)	03*	(75)
7	55	0	(0)	04*	(100)
8	62	1	(25)	03*	(75)
9	63	0	(0)	04*	(100)
10	64	0	(0)	04*	(100)
11	65	0	(0)	04*	(100)
12	66	0	(0)	04*	(100)
13	72	0	(20)	04*	(100)
14	73	0	(20)	04*	(100)
15	74	0	(0)	04*	(100)
16	75	0	(0)	04*	(100)
17	79	0	(0)	04*	(100)

(* indicates majority of response and the number in brackets indicates percentages.)

The table 16 presents that all the faculty members perceived themselves as competent in all the competencies identified under the wing, hence the hypothesis is accepted.

Table 16: Frequency and percentage of responses on
possession of competencies by the DIET faculty
members of the IFIC wing with regard to
competencies identified under that wing

Sl. No	Competency No.	Not competent		Competent	
1	10	0	(0)	05*	(100)
2	13	0	(0)	05*	(100)
3	37	0	(0)	05*	(100)
4	38	0	(0)	05*	(100)
5	39	0	(0)	05*	(100)
6	40	0	(0)	05*	(100)
7	41	0	(0)	05*	(100)
8	43	0	(0)	05*	(100)
9	44	1	(20)	04*	(80)
10	45	0	(0)	05*	(100)
11	46	0	(0)	05*	(100)
12	47	0	(0)	05*	(100)
13	48	0	(0)	05*	(100)
14	49	0	(0)	05*	(100)
15	50	0	(0)	05*	(100)
16	51	0	(0)	05*	(100)
17	52	0	(0)	05*	(100)
18	53	0	(0)	05*	(100)
19	54	0	(0)	05*	(100)
20	55	0	(0)	05*	(100)
21	56	0	(0)	05*	(100)
22	57	0	(0)	05*	(100)
23	58	0	(0)	05*	(100)
24	59	0	(0)	05*	(100)
25	60	0	(0)	05*	(100)
26	61	0	(0)	05*	(100)
27	62	0	(0)	05*	(100)
28	63	0	(0)	05*	(100)
29	64	0	(0)	05*	(100)
30	66	0	(0)	05*	(100)
31	72	0	(0)	05*	(100)
32	73	0	(0)	05*	(100)
33	74	0	(0)	05*	(100)
34	80	0	(0)	05*	(100)

(* indicates majority of response and the number in brackets
indicates percentages.)

From the above table it could be seen that, in all the
competencies under IFIC wing, the members of IFIC wing
perceive themselves as competent. Hence the hypothesis is
accepted.

Table 17: Frequency and percentage of responses on
possession of competencies by the DIET faculty
members of the IFIC wing with regard to
competencies identified under that wing

Sl. No.	Competency No.	Not competent		Competent	
1	2	0	(0)	02*	(100)
2	4	0	(0)	02*	(100)
3	5	0	(0)	02*	(100)
4	18	0	(0)	02*	(100)
5	20	0	(0)	02*	(100)
6	26	0	(0)	02*	(100)
7	27	0	(0)	02*	(100)
8	36	0	(0)	02*	(100)
9	42	0	(0)	02*	(100)
10	67	0	(0)	02*	(100)
11	68	0	(0)	02*	(100)
12	70	0	(0)	02*	(100)

(* indicates majority of response and the number in brackets
indicates percentages)

The table reveals that all the faculty members of CMDE
wing perceived themselves as competent with respect to all
the 12 competencies identified under the wing. Hence the
hypothesis is accepted.

Table 18: Frequency and percentage of responses on
possession of competencies by the DIET faculty
members of the ET wing with regard to
competencies identified under that wing

Sl. No.	Competency No.	Not competent		Competent	
1	6	0	(0)	01*	(100)
2	10	0	(0)	01*	(100)
3	11	0	(0)	01*	(100)
4	27	0	(0)	01*	(100)
5	28	0	(0)	01*	(100)
6	30	0	(0)	01*	(100)
7	31	0	(0)	01*	(100)
8	32	0	(0)	01*	(100)
9	35	0	(0)	01*	(100)
10	37	0	(0)	01*	(100)

(* indicates majority of response and the number in brackets
indicates percentages.)

Sizeable majority of the ET wing members consider themselves as competent with respect to all the competencies identified under the wing. Hence the hypothesis is accepted.

4.6 TRAINING NEEDS AND PREFERENCES

Objective 4: To identify the training needs and preferences of elementary teacher educators in terms of their self-perception.

Training needs were obtained in terms of the frequency of responses based on the self perception of teacher educators towards each of the eighty competencies on a four point rating scale with cues 'Training not required', 'Require theoretical orientation', 'Require a short-term training including theoretical orientation' and 'Require a long-term training including theoretical orientation'.

Training preferences were studied from the responses of the DIET faculty members with respect to the venue, duration of a short and long-term training and the mode of training. The responses obtained from the DIET faculty have been analysed under the following six heads.

1. Overall perception of the DIET faculty members of the training needs.

2. Wingwise perception of the DIET faculty members of the training needs.

3. Preference for the venue.

4. Preference for the duration of a short-term training.

5. Preference for the duration of a long-term training

6. Preference for mode of training.

Hypotheses were formulated with respect to each for testing their significance. Hypotheses testing was undertaking by computing chi-square values with equal probability occurrence of each of the category. The procedure of computing chi-square has been described earlier. Each of the hypotheses tested has been described in the following sub-sections.

4.6.1 Overall perception of the DIET Faculty Members of the Training Needs

Hypothesis 4

There would be a significant trend obtainable from the perceptions of the DIET faculty members with respect to the training needs on each of the competencies identified.

The result obtained after performing the chi-square test has been presented in the table below.

Table 19: Trend obtained, from the perceptions of all the DIET faculty members with respect to the training needs in each of the eighty competencies

Comp. No. 1	T.N.R. 2	R.T.O. 3	R.S.T. I.T.O. 4	R.L.T. I.T.O. 5	x^2 6
1	06	12	15	06	06.?30767
2	02	10	21*	06	20.?89744*
3	02	14	17*	06	14.?45154*
4	03	12	18*	06	13.?15385?
5	00	16*	17*	06	20.?89744*
6	07	10	15*	07	04.??4612*
7	03	20*	13	03	21.? ?5127*
8	01	16*	18*	04	22.? ?769*
9	02	17*	16*	04	18.? ?718*
10	02	15*	20*	02	28.? ?202*
11	04	12	19*	04	16.? ?924*
12	06	17*	14	02	14.? 154*
13	04	14	18*	03	16.? ?7*
14	04	14	18*	03	16.? ?7*

.

Comp. No. 1	T.N.R. 2	R.T.O. 3	R.S T I.T.O. 4	R L.T. I.T.O. 5	x^2 6
15	05	12	19*	03	16.28052*
16	02	18*	16*	03.	21.760512*
17	03	14	21*	01'	27.358975*
18	01	14	21*	03	27.358975*
19	03	16*	15*	05	13 82051*
20	04	13	18*	04	14.846154*
21	05	20*	12	02	19 769232*
22	05	13	16*	05	09.71949*
23	07	11	18*	03	12.589743*
24	01	18*	16*	04	22.230769*
25	06	14	19*	01	20.794872*
26	05	16*	15*	03	13.820511*
27	03	13	17*	06	12 589744*
28	02	14	20*	03	23.461537*
29	03	13	18*	05	15.051282*
30	03	13	18*	05	15.051282*
31	05	13	14	07	06.025641*
32	03	17*	12	07	11.000000*
33	05	14	15*	05	09.30769*
34	03	14	19*	03	19.974359*
35	05	15*	14	05	09.307696*
36	01	16*	15*	07	15.461535*
37	03	09	19*	08	13.820513*
38	03	09	19*	08	13.820513*
39	02	15*	15*	07	12.589737*
40	04	09 •	19*	07	13.000001*
41	05	08	22*	04	21.410262*
42	02	10	21*	06	20 589744*
43	03	10	19*	07	14.230769*
44	06	11	19*	03	15.051282*
45	05	13	18*	03	15.051282*
46	03	19*	13	04	17.923077*
47	03	15*	18*	03	19.153843*
48	04	14	19*	02	21.179487*
49	04	17*	15*	03	16.282049*
50	06	13	17*	03	12.589744*
51	01	20*	16*	02	28.79487*
52	04	21*	13	01	25.307693*
53	07	15*	12	05	06.435895*
54	03	16*	15*	05	13.82051*
55	08	16*	12	03	09.512821*
56	06	13	16*	04	09.923077*
57	03	13	17*	06	12.589744*
58	04	13	18*	04	14.846154*
59	02	15*	18*	04	19.358971*
60	05	15*	14	05	09.30769*
61	05	14	14	06	07.461539
62	02	16*	18*	03	21.820512*

Comp. No.	T.N R.	R.T.O	R S.T. I T.O.	R.L.T. I.T.O	X^2
1	2	3	4	5	6
63	03	14	19*	03	19.974359*
64	03	16*	15*	05	13.82051*
65	03	16*	14	06	11.974359*
66	03	11	20*	05	17.923076*
67	05	13	20*	01	22.02564*
68	04	12	18*	05	13.20529*
69	01	04	21*	03	26.70527*
70	03	11	21*	04	21.20529*
71	04	11	17*	07	09.717949*
72	02	11	22*	04	25 102568*
73	04	12	19*	04	16 076924*
74	05	14	18*	02	17.307692*
75	04	17*	16*	02	18.948718*
76	03	16*	17*	03	18.74359*
77	01	14	21*	03	27.358975*
78	01	18*	18*	02	27.974358*
79	03	14	19*	03	19.974359*
80	03	14	19*	03	19.974359*

* - Significant at 0.05 level
T.N.R - Training Not Required
R.T.O - Required Theoretical Orientation
R.S.T I.T.O. - Require Short-Term Training Including
              Theoretical Orientation
R.L.T.I T O. - Require Long-Term Training Including
              Theoretical Orientation

In the table , with regard to 'Training not Required' column it is clear that none of the competencies revealed a significant trend. This would mean, a significant number of DIET faculty members considered that they require one or the other kind of training on each of the eighty competencies. However two competencies (31 and 61) were such that they did not show any significant trend in the perception of the DIET faculty members with respect to the training needs. This would mean that, even though the DIET faculty members considered that they require training, as a group they were

not sure as to what type of trainings were required by the~.
The competencies which did not show significant trend are,

1) Competency to repair and maintain teaching aids/
equipments.

2) Competency to train teachers in dealing with the special
needs.

In the light of the above, hypothesis 4 is accepted
for 78 out of a total list of eighty competencies In other
words a significant trend was obtainable on 78 competencies
from perceptions of the DIET faculty members with respect to
the training needs. Further, it can be seen from the table
that none of the competencies, from among the list of eighty
competencies presented to the DIET faculty, were considered
as 'Require Long-Term Training Including Theoretical
Orientation'. This could largely be due to the fact that a
long term training in any competency is not required for all
the DIET faculty members.

Taking into account the category of responses 'require
theoretical orientation' it can be observed that in 31
competencies   (5,7,8,9,10,12,16,19,21,24,26,32,35,36,39,46,
47,49,51,52,53,54,59,60,62,64,75,76,78)   the elementary
teacher educators needed theoretical orientation.

The remaining competencies showed a significant trend
in the responses of DIET faculty members in that they
perceived the 'requirement of short-term training including
theoretical orientation. The serial numbers of these 20
competencies are   5,8,9,10,16,19,24,26,39,47,49,51,54,59,62,

64,75,76 and 78. It can be observed that these 20 competencies are such that they showed a significant trend under two categories, viz. R.T.O. and 'require theoretical orientation' and 'require short term training'.

In the light of the above analysis the list of eighty competencies identified has been presented in terms of the perception of DIET members with regard to the training needs in the following.

1 Training Not Required   Nil

2. Require Theoretical Orientation   31

3. Require Short-Term Training   65
   Including Theoretical Orientation

4 Require Long-Term Training   Nil
   Including Theoretical Orientation

4.6.2 Wingwise Perception Regarding Training Needs

Hypothesis 5

The hypothesis framed for studying the wingwise perception regarding training needs is as follows; The faculty members working in a particular wing of the DIET would not perceive training are required on the competencies identified for the wing.

The frequency of responses of the DIET faculty members corresponding to a particular wing towards those competencies identified under that wing are tabulated under two heads, 'Training Not Required' and 'Training Required'. The category of 'Training Required' is formed as a result of pooling the responses under the cues 'Require Theoretical Orientation', 'Require a Short-Term Training' and 'Require

Long-Term Training'. The frequency and percentage of
all wings are presented in the following tables with
interpretation.

Table 20: Frequency and percentage of responses on the
training needs of the DIET faculty members
of the PSTE wing with regard to competencies
identified under that wing

Sl No.	Competency No.	Training not required		Training required	
1	1	4	(21.05)	15*	(78.95)
2	2	1	(5.26)	18*	(94.74)
3	3	1	(5.26)	18*	(94.74)
4	5	0	(0)	19*	(100)
5	6	2	(10.52)	17*	(89.47)
6	7	2	(10.52)	17*	(89.47)
7	8	1	(10.52)	17*	(89.47)
8	9	1	(5.26)	18*	(94.74)
9	10	1	(5.26)	18*	(94.74)
10	11	2	(10.52)	17*	(89.74)
11	12	4	(21.05)	15*	(78.95)
12	13	2	(10.52)	17*	(89.74)
13	14	2	(10.52)	17*	(89.74)
14	15	1	(5.26)	18*	(94.74)
15	17	1	(5.26)	18*	(94.74)
16	19	1	(5.26)	18*	(94.74)
17	21	3	(15.79)	16*	(84.21)
18	22	3	(15.79)	16*	(84.21)
19	23	3	(15.79)	16*	(84.21)
20	24	0	(0)	19*	(100)
21	25	3	(15.79)	16*	(84.21)
22	29	1	(5.26)	18*	(94.74)
23	32	1	(5.26)	18*	(94.74)
24	33	4	(21.05)	15*	(78.95)
25	34	2	(10.52)	17*	(89.74)
26	35	3	(15.79)	16*	(84.21)
27	61	2	(10.52)	17*	(89.74)
28	66	2	(10.52)	17*	(89.74)
29	68	2	(10.52)	17*	(89.74)
30	69	1	(5.26)	18*	(94.74)
31	70	1	(5.26)	18*	(94.74)
32	71	1	(5.26)	18*	(94.74)
33	80	2	(10.52)	17*	(89.74)

(* indicates majority of response and the number in brackets
indicates percentages.)

From the above table, it can be seen that all the competencies under PSTE wing are perceived by a majority of the DIET faculty working in the PSTE wing as requiring training. Hence the hypothesis is rejected.

Table 21: Frequency and percentage of responses on the training needs of the DIET faculty members of the WE wing with regard to competencies identified under that wing

Sl. No	Competency No.	Training not required		Training required	
1	4	0	(0)	03*	(100)
2	6	0	(0)	03*	(100)
3	16	0	(0)	03*	(100)
4	26	1	(33.33)	02	(66.66)
5	27	0	(0)	03	(100)
6	28	0	(0)	03*	(100)
7	36	0	(0)	03*	(100)
8	58	0	(0)	03*	(100)
9	67	0	(0)	03*	(100)
10	70	1	(33.33)	02	(66.66)
11	76	1	(33.33)	02	(66.66)
12	77	0	(0)	03*	(100)
13	78	0	(0)	03*	(100)

(* indicates majority of response and the number in brackets indicates percentages.)

From the table it can observed that except for the competencies 26, 70 and 76, all the competencies under WE wing are perceived by majority of the faculty members as requiring training. Hence the hypothesis is rejected.

Table 22: Frequency and percentage of responses on the
training needs of the DIET faculty members of
the P&M wing with regard to competencies
identified under that wing

Sl. No	Competency No.	Training not required		Training required	
1	6	0	(0)	04*	(1CC)
2	13	0	(0)	04*	(1CC)
3	23	0	(0)	04*	(1CC)
4	28	0	(0)	04*	(1CC)
5	43	0	(0)	04*	(1CC)
6	54	1	(25)	03*	(75
7	55	1	(25)	03*	(75
8	62	0	(0)	04*	(1CC)
9	63	0	(0)	04*	(1CC)
10	64	0	(0)	04*	(1CC)
11	65	0	(0)	04*	(1CC)
12	66	0	(0)	04*	(1CC)
13	72	0	(0)	04*	(1CC)
14	73	0	(0)	04*	(1CC)
15	74	1	(25)	03*	(75
16	75	0	(0)	04*	(1CC)
17	79	1	(25)	03*	(75

(* indicates majority of response and the number in brackets
indicates percentages.)

The above table reveals that, on all the competencies

listed under P&M wing the faculty members perceive a used

for training require. Hence the hypothesis is rejected.

Table 23: Frequency and percentage of responses on the
training needs of the DIET faculty members
of the DRU wing with regard to competencies
identified under that wing

Sl. No.	Competency No.	Training not required		Training required	
1	4	1	(20)	04*	(80)
2	23	2	(40)	03	(60)
3	26	1	(20)	04*	(80)
4	27	2	(40)	03	(60)
5	28	1	(20)	04*	(80)
6	31	1	(20)	04*	(80)
7	36	1	(20)	04*	(80)
8	40	1	(20)	04*	(80)
9	41	2	(40)	03	(60)
10	43	1	(20)	04*	(80)
11	62	1	(20)	04*	(80)
12	63	1	(20)	04*	(80)
13	64	1	(20)	04*	(80)
14	66	1	(20)	04*	(80)
15	67	1	(20)	03*	(80)
16	70	1	(20)	04*	(80)
17	72	2	(40)	03	(60)
18	73	2	(40)	03	(60)
19	76	1	(20)	04*	(80)
20	6	1	(20)	04*	(80)

(* indicates majority of response and the number in brackets
indicates percentages.)

From the table it could be seen that except for the
competency numbers 23, 41, 72 and 73, all the competencies
listed are perceived by a majority of the DRU wing members
as requiring training. Hence the hypothesis is rejected.

Table 24: Frequency and percentage of responses on the
training needs of the DIET faculty members
of the IFIC wing with regard to competencies
identified under that wing

Sl. No.	Competency No.	Training not required		Training ; required	
1	10	1	(20)	04*	(80)
2	13	1	(20)	04*	(80)
3	37	1	(20)	04*	(80)
4	38	1	(20)	04*	(80)
5	39	1	(20)	04*	(80)
6	40	1	(20)	04*	(80)
7	41	2	(40)	03	(60)
8	43	2	(40)	03	(60)
9	44	2	(40)	03	(60)
10	45	1	(20)	04*	(80)
11	46	2	(40)	03	(60)
12	47	1	(20)	04*	(80)
13	48	1	(20)	04*	(80)
14	49	1	(20)	04*	(80)
15	50	1	(20)	03*	(80)
16	51	1	(20)	04*	(80)
17	52	1	(40)	04*	(80)
18	53	2	(40)	03	(60)
19	54	1	(20)	04*	(80)
20	55	2	(40)	03	(60)
21	56	1	(20)	04*	(80)
22	57	1	(20)	04*	(80)
23	58	1	(20)	04*	(80)
24	59	1	(20)	04*	(80)
25	60	1	(20)	04*	(80)
26	61	2	(40)	03	(60)
27	62	1	(20)	04*	(80)
28	63	1	(20)	04*	(80)
29	64	1	(20)	04*	(80)
30	66	1	(20)	04*	(80)
31	72	1	(20)	04*	(80)
32	73	1	(20)	04*	(80)
33	74	1	(20) ;	04*	(80)
34	80	1	(20)	04*	(80)

(* indicates majority of response and the number in brackets
indicates percentages.)

Table 24 reveals that except for the competencies 41,

43, 46, 52 and 61, all the competencies under IFIC wing are

i

perceived by a majority of the faculty members are requiring

a training. Hence the hypothesis is rejected for remaining

competencies.

Table 25: Frequency and percentage of responses on the
training needs of the DIET faculty members
of the CMDE wing with regard to competencies
identified under that wing

Sl No.	Competency No.	Training not required		Training required	
1	2	0	(0)	02*	(100)
2	4	0	(0)	02*	(100)
3	5	0	(0)	02*	(100)
4	18	0	(0)	02*	(100)
5	20	0	(0)	02*	(100)
6	26	1	(50)	01	(50)
7	27	0	(0)	02*	(100)
8	36	0	(0)	02*	(100)
9	42	0	(0)	02*	(100)
10	67	0	(0)	02*	(100)
11	68	0	(0)	02*	(100)
12	70	0	(0)	02*	(100)

(* indicates majority of response and the number in brackets
indicates percentages.)

From the table, it could be realised that except for

the competency number 26, majority of the faculty members of

the CMDE wing responded that a training is required. The

hypothesis is rejected.

Table 26: Frequency and percentage of responses on the
training needs of the DIET faculty members
of the ET wing with regard to competencies
identified under that wing

Sl. No.	Competency No.	Training not required		Training required	
1	6	1*	(100)	00	(0)
2	10	0	(0)	01*	(100)
3	11	0	(0)	01*	(100)
4	27	0	(0)	01*	(100)
5	28	0	(0)	01*	(100)
6	30	0	(0)	01*	(100)
7	31	0	(0)	01*	(100)
8	32	0	(0)	01*	(100)
9	35	0	(0)	01*	(100)
10	37	0	(0)	01*	(100)

(* indicates majority of response and the number in brackets
indicates percentages)

From the table it could be seen that a majority of the
faculty members responded as requiring a training. Hence the
hypothesis is rejected.

4.6.3 Preference for the Venue

Hypothesis 6

There is no significant preference for the venue of a
training programme among the DIET faculty members.

To test this hypothesis, information was collected
from the DIET faculty member. An item regarding preference
of the venue of training programme was included in the form
of a closed ended question with two options viz.,

1. At the DIET,

2. Outside the DIET.

The data obtained is presented in Table below and was analysed for significance using the Chi-square test incorporating rate's correction with 1 degree of freedom and at 0.05 level.

Table 27: Preference for the Venue of a Training Programme

Venue	At the DIET	Outside the DIET
Frequency	5	34

Chi-square value = 21.564

This value is greater than the tabled value of Chi-square with 1 df at 0.05 level which is 3.841. Hence, the Chi-square value is significant. Which indicates that there is a clear cut preference among the DIET faculty members of having the training programme outside the DIET.

4.6.4 Preference for the Duration of Short-Term Training

Hypothesis 7

There is no significant preference for a particular duration for a short term training programme among the DIET faculty members.

The data regarding this hypothesis is presented in the following table . The Chi-square with Yate's correction was used for the analysis.

Table 28: Preference of Duration of a Short-Term Training Programme

Duration	Less than 3 days	3 to 5 days	5 to 7 days	7 to 10 days	10 to 15 days
Frequency	4	4	7	15	9

Chi-square value = 9.7244

The value is greater than the tabled value of Chi-square with 4 df at 0.05 level which is 9.488. Thus the Chi-square value is significant, which shows a preference among the DIET faculty members of having the short term training programme with a 7 to 10 days duration.

4.6.5 Preference for the Duration of a Long-Term Training

Hypothesis 8

There is no significant preference for a particular duration for a long term training programme among the DIET faculty members.

The data obtained regarding this hypothesis is presented in the following. The Chi-square with Yate's correction was used for the analysis.

Table 29: Preference of Duration for a Long-Term Training Programme

Duration	10 to 15 days	Less than 1 month	1 to 3 months	3 to 6 months	1 year
Frequency	13	21	4	0	1

Chi-square value = 26.929

This value is greater than the table value of Chi-square with 4 df at 0.05 level which is 9.48. Thus the chi-square value is significant, which indicates that the preferences are not by mere chance, but there is a clear cut preference among the DIET faculty members of having the long term training programme with a duration of less than one month.

4.6.6 Preference for Type of Training

Hypothesis 9

There is no significant preference for a particular type of programme among the DIET faculty members.

The results obtained after testing the significance using Chi-square test has been given in the following table

Table 30: Preference for a Particular Type of Programme

Type	Contact Mode	Distance mode	Institutionalised
Frequency	15	4	20

Chi-square value = 10.3076

This value is greater than the tabled value of Chi-square with 2 df at 0.05 level which is 5.991. Thus the Chi-square value is significant which indicates that the preferences are not by mere chance, but there is a clear cut preference among the DIET faculty members having institutionalised type of programme.

CHAPTER   V

FINDINGS AND SUGGESTIVE PROGRAMMES OF STAFF DEVELOPMENT

5.1 INTRODUCTION

DIETs were established to function as a third tier of national educational system at the district level This concept was a part of the intention of making interventions at the grass root level and with the cooperation of the community. "DIET GUIDELINES-1989" has listed in it specific functions in a wingwise manner that are expected to be performed by the DIET faculty members.

In order to activate the educational system the faculty members should play a vital role through the DIETs in organising educational activities and using the available and should have a complete knowledge of the functions to be performed as a particular wing member of the DIET. Educational movements and programmes planned at the national level are implemented at the school level through the DIETs. Hence the success of any programme depends ultimately upon the DIET faculty members.

5.2 MAIN FINDINGS

A total of 80 competencies were identified from the DIET-Guidelines.

The DIET faculty members did not consider any of the identified competencies as not required. Thus they seem to be aware of the competencies needed to perform the routine functions. Also it is noticeable that wing members are aware

of requirement of the competencies identified under the wing.

All DIET faculty members tend to perceive themselves as fairly competent. It is noticeable that members have not perceived themselves, with regard to any of the competencies, as less competent or not competent or highly competent. It seems that faculty members wanted to be on the safer side by not declaring themselves as not competent or less competent. It is possible that the prestige of the member forbid them from making negative responses. The wing members also perceive themselves competent with regard to the competencies identified under the wing Thus it could be expected that the situation would enhance the efficiency of wing functioning.

The DIET faculty members have demanded training with regard to many of the competencies. However they did not require a long term training with regard to any of the competencies. This could be either because, the members are partially competent with regard to the competency or they don't want to commit to a training of long duration. It seems slightly contradicting, in the case of few competencies wherein faculty members have perceived themselves highly competent and have demanded a training for the very same competency.

5.3 SUGGESTIVE PROGRAMMES OF STAFF DEVELOPMENT

This study has looked into the competencies required and those available among the teacher educators at the

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elementary level with a view to arrive at a profile of competencies for the teacher educators at elementary level.

The training needs have also been identified based on the perceptions of teacher educators. Further, they were asked for their preferences for the type of training with a view to formulate suggestive training designs. It is needless to say that the design thus arrived at cannot be exhaustive but can provide useful guidance for evolving training programmes for teacher educators in terms of their content and organisation. The following findings of this study have an implication for the organisation of training for DIET faculty.

The DIET faculty have shown a preference for.

1. the training programmes to be held outside the DIET.

2. a seven to ten days duration for a short-term training.

3. a duration of less than one month for a long-term training.

4. institutionalised type of programme in which the teacher educators would stay at the training venue for the entire duration of training.

Based on the responses obtained from the DIET faculty, the following themes have been identified for organising long-term training programmes leading to an enhancement/ development of competencies.

1. Planning and preparation for a training programme

The inputs may include, identification of areas/themes of training based on a systematic need assessment,

communications with teachers, designing the objectives, inputs, evaluation for the programme, maintenance of database.

2. Training Technology

Identification, development and sequencing of various types of training material based on the objectives to be attained.

3 Organising a Training Programme

Preparedness of trainers, trainee reachness, grouping, scheduling activities and inputs, avoiding loss of training time, monitoring and evaluation.

4. Reporting, Documentation and Dissemination

Purpose and types of reports, formats for reporting, style of reporting, evaluating a report, documentation of activities/processes/outcomes, mode and frequency of dissemination, use of computer in reporting, documentation and dissemination.

5. Trainer Skills and Competence

With respect to planning, preparation, organising, communication, evaluation, monitoring, management, etc.

6. Research and Development

With an emphasis on action research, research by a team/institution.

The short-term training programmes could either be pitched at the awareness level on the above themes/subthemes or at competency development level on the subthemes.

The following content have also been identified for organising content-enrichment or refresher training programmes for the teacher educators at the elementary level, with a view to arrive at approaches:

1 Individualised Instruction

2. Continuous and Comprehensive Evaluation

3. Competency Based Teaching and Evaluation

4. Multigrade Teaching

5. Undertaking Action Research

6. School Community Linkages and Community Mobilisation

7. Activity Based Teaching and Learner Centred Education

8. Use of Audio-Visuals in Teaching

9. Integrated Education of the Disabled

10. Peer Group Tutoring and Cooperative Learning

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APPPENDIX A

LIST OF FUNCTIONS

1. Pre-service Teacher Education (PSTE)

   a. Organising pre-service programme

   b. Propagation of learner centered education and education of personality development through training, extension, teaching aids, action research, etc

   c. Matters concerning teaching methodologies

   d. Counselling and Guidance

   e Education for disadvantaged children, handicapped, gifted

   f. In-service programme for elementary teachers

   g. Maintenance of science lab, resource room, etc

   h. Promotion of co-curricular activities

2. Work Experience (WE)

   a. Developing curricular units, teaching aids, evaluation tools/techniques

   b. In-service programmes for teachers in area of work experience

   c. Organise activities of cleanliness in the institute

   d. Organise community service activities

   e. Maintain workshop

   f. Promote work related hobbies in trainees of the institute

3. District Resource Unit (DRU)

   a. Assist educational authorities to plan and co-ordinate non-formal education/adult education

b   Induction training and continuing education for instructors

c   Orientation programme for resource persons

d. To provide instructional inputs into non-formal education/adult education

e. Evaluate/monitor the quality and efficacy of training programmes for non-formal education/adult education personnel

f   Maintain data base on all NFE/AE personnel

g. Development/modification of curriculum, teaching-learning material, teaching aids and evaluation tools for NFE/AE

h. To undertake field-interaction

i. To undertake action-research

4. In-service Programmes, Field-Interaction and Innovation Co-ordination (IFIC)

   a. Assist educational authorities in planning and coordination of in-service programme

   b. Identify training needs and prepare a perspective plan to meet the needs of elementary teachers.

   c. Prepare annual calender.

   d. Orientation programmes for resource persons of inservice programmes.

   e. Evaluate/monitor the quality of efficacy of inservice programme

   f. To maintain database for all except NFE/AE

   g. To serve as reference and resource centres for teachers

h. Act as nodal branch for action research

i. Act as nodal branch for field interaction

5. Curriculum, Material Development and Evaluation (CMDE)

   a. Modify/Develop (i) Curricular Units, (ii) Teaching-Learning Modules for general as well as locally developed curricular units, (iii) Evaluation Tools/ Techniques

   b Testing on sample basis to assess achievement of learners on basis of Minimum Levels of Learning (MLL).

   c. Helping educational authorities to implement reliable and valid system of learner evaluation.

   d. Workshop (conducting of) to achieve above.

6. Educational Technology (ET)

   a. To develop low-cost teaching aids.

   b. Maintain audio-visual equipment, computer lab, library of audio-visual aids.

   c. To liase with near by radio-station for arranging educational broadcasts.

   d. Conduct in-service programmes for teachers in the area of educational technology.

   e. To conduct workshop for development of teaching aids.

7 Planning and Management (P&M)

   a. To maintain database

   b. To conduct studies about enrolment, reaction, attendance, effect of incentives, community perception and participation

c. Technical-assistance to educational authorities in school-mapping, micro-planning, formation, activation and planning of school complexes and institutional evaluation.

d. Orientation programmes for member of DBE, VECs, community leaders, youths and other voluntary educational workers.

e. Conduct programmes for headmaster and other head of institutions about planning and management.

f. To appraise the efficacy of various programmes

g. To prepare annual plans, annual self evaluation reports

h. Field-interaction, action-research, etc. with special reference to the inservice programmes, and pre-service training programmes.

APPENDIX B

LIST OF COMPETENCIES

I. Competencies in teaching

1. Competency to organise the teaching content

2. Competency to design learning experiences

3. Competency to plan instruction

4. Competency to design instructional material

5. Competency to design activity based learning

6. Competency to communicate effectively

7. Competency to use alternate teaching methodologies

8. Competency to individualise instruction

9. Competency to promote student participation in learning process

10. Competency to use audio visual aids (graphic and projected aids)

11. Competency to use teaching aids (other than graphic and projected aids)

12. Competency to maintain harmonious relationship with students

13. Competency to provide effective feedback

14. Competency to use techniques of motivation

15. Competency to assess students performance

16. Competency to provide work experience

17. Competency to analyse learning difficulties

18. Competency to take remedial action

19. Competency to keep the records of student's performance

20. Competency to organise field trips, projects and workshops

21 Competency to arrange co-curricular activities

22 Competency in classroom management

23. Competency to undertake self evaluation

II. Competencies in Guidance and Counselling

24. Competency to provide educational, personal, social and vocational guidance

25. Competency to undertake counselling

III. Competency in Instructional Design

26. Competency to develop locally relevant instructional material

27. Competency to identify and use locally available material

28 Competency to prepare low cost teaching aids

29. Competency to display teaching material systematically

30. Competency to develop audio programmes

31. Competency to repair and maintain teaching aids/ equipments (including sports equipment)

32. Competency to maintain (a) Library

33. (b) Science Lab.

34. (c) Psychology Lab.

35. (d) Audio Visual Aids

36. Competency to develop graphic aids

IV. Competencies in Designing Training Programmes

37. Competency to identify training needs

38. Competency to plan training programmes

39. Competency to design training material

40. Competency to co-ordinate training programme

41. Competency to monitor a training programme

42. Competency to design a training material for distance education

43. Competency to valuate a training programme

44. Competency to organise follow up activities after training (including continuing education)

V. Subject Related Competencies Competency to train teachers in

45. Competency based teaching

46. Minimum levels of learning approach

47. Continuous and comprehensive evaluation

48 Individualising instruction

49. Learner centered education

50. Multigrade teaching

51. Peer-group tutoring

52. Activity based teaching

53. Universalisation of Elementary Education

54. Institutional planning/ management

55. Action research

56. District Primary Education Programme

57. Educational Technology

58. Work experience

59. Finance and Account/ Office procedure

60. Making education joyful

61. Dealing children with special needs

VI. Competencies in Research and Data Processing

62. Competency to record data

63. Competency to tabulate data

64. Competency to analyse and interpret data

65. Competency to report project Activity/ Research

66. Competency to undertake action research

VII. Competencies in Evaluation

67. Competency to develop evaluation tools

68. Competency to prepare a blue print for evaluation

69 Competency to develop items for an achievement test (including criterion referenced test)

70. Competency to prepare practical works for evaluation

71. Competency to use evaluation tools

VIII. Competencies in Dissemination

72. Competency to edit data/articles/reports

73. Competency in documentation and dissemination of data/ practices/findings

74. Competency to prepare annual calender

IX. Miscellaneous

75. Competency to undertake school mapping

76. Competency to elicit community participation

77. Competency to develop and organise hobby club

78. Competency to maintain farm/garden (for W.E. Activities)

79. Competency to conduct micro planning

80 Competency to maintain a resource room

APPENDIX C

REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE

INFORMATION BLANK FOR DIET FACULTY

1. Name of the Institution   : _____
   with address
                                _____

2 Name of the DIET   : _____
   Faculty

3. Sex   : _____

4. Age   : _____ years

5. Total experience   : _____ years

6. In what capacities have you: _____
   worked before coming to   _____
   DIET   _____

7. Placement and Qualification.

For how many years you are working in this DIET ?	The wing in which you are working	For how many years you are working in this wing ?	Academic qualification BA/B.Sc./ MA/M.Sc. (Indicate if any ; other)	rofes- sional qualifi- cation B.Ed./ M.Ed. (Indicate if any other)	Area of specia- lisation (if any)

8. Training received
   (Please indicate in the following, trainings you have received since your joining the service.)

Title of the training programme	Institution from where training received	Year of training	Duration
(1)			
(2)			
(3)			
(4)			
(5)			
(6)			

9. (a) Given a choice of equivalent post, would you like to continue working in the DIET ?   Yes/No

   (b) Why ? _____
   _____

10. Given a choice, which wing in a DIET would you prefer to work in ?
    (Please tick mark one of the following.)

    PSTE/WE/DRU/IFIC/CMDE/ET/P&M

11. What are the additional functions/responsibilities you perform as a DPEP-DIET faculty as compared to a non-DPEP DIET faculty ?

    _____
    _____
    _____

APPENDIX D

REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE

COMPETENCIES REQUIRED AMONG DIET FACULTY

Dear Sir/Madam,

Given below is a list of competencies. Keeping in mind the functions and duties performed by a DIET faculty, please indicate the level of requirement of each competency for a DIET faculty by putting a tick mark (/) against the competencies under the relevant column. For example, if competency no. 1 (i.e. "Competency to organise the teaching content") in your view is not required for DIET faculty then put a tick mark (/) under column no. 1 (i.e. "Not required"). Please don't leave any competency unticked

Sl. No.	Competencies	Not requ- ired	Occass- ionally required	Frequ- ently requ- ired	Daily requ- ired
		1	2	3	4

I. Competencies in teaching

1. Competency to organise the teaching content

2. Competency to design learning experiences

3. Competency to plan instruction

4. Competency to design instructional material

5. Competency to design activity based learning

6. Competency to communicate effectively

7. Competency to use alternate teaching methodologies

8. Competency to individualise instruction

	1	2	3

9. Competency to promote
   student participation
   in learning process

10. Competency to use audio
    visual aids (graphic
    and projected aids)

11. Competency to use
    teaching aids (other
    than graphic and
    projected aids)

12. Competency to maintain
    harmonious relationship
    with students

13. Competency to provide
    effective feedback

14. Competency to use
    techniques of
    motivation

15 Competency to assess
    students performance

16. Competency to provide
    work experience

17 Competency to analyse
    learning difficulties

18 Competency to take
    remedial action

19. Competency to keep the
    records of student's
    performance

20. Competency to organise
    field trips, projects
    and workshops

21. Competency to arrange
    co-curricular
    activities

22. Competency in classroom
    management

	1	2	3	4

23. Competency to undertake self evaluation

II. Competencies in Guidance and Counselling

24. Competency to provide educational, personal, social and vocational guidance

25. Competency to undertake counselling

III. Competencies in Instructional Design

26. Competency to develop locally relevant instructional material

27. Competency to identify and use locally available material

28. Competency to prepare low cost teaching aids

29. Competency to display teaching material systematically

30. Competency to develop audio programmes

31. Competency to repair and maintain teaching aids/ equipments (including sports equipment)

32. Competency to maintain (a) Library

33. (b) Science Lab.

34. (c) Psychology Lab.

35. (d) Audio Visual Aids

	1	2	3
36. Competency to develop graphic aids			
IV. Competencies in Designing Training Programmes			
37 Competency to identify training needs			
38. Competency to plan training programmes			
39. Competency to design training material			
40 Competency to co-ordinate training programme			
41. Competency to monitor a training programme			
42. Competency to design a training material for distance education			
43. Competency to valuate a training programme			
44. Competency to organise follow up activities after training (including continuing education)			
V. Subject Related Competencies Competency to train teachers in			
45. Competency based teaching			
46. Minimum levels of learning approach			
47. Continuous and comprehensive evaluation			
48. Individualising instruction			

		1	2	3	4

49 Learner centered
    education

50. Multigrade teaching

51. Peer-group tutoring

52. Activity based
    teaching

53. Universalisation of
    Elementary Education

54. Institutional planning/
    management

55. Action research

56. District Primary
    Education Programme

57. Educational Technology

58. Work experience

59. Finance and Account/
    Office procedure

60. Making education
    joyful

61. Dealing children with
    special needs

VI. **Competencies in
    Research and Data
    Processing**

62. Competency to record
    data

63. Competency to tabulate
    data

64. Competency to analyse
    and interpret data

65. Competency to report
    project Activity/
    Research

	1	2	3

66 Competency to undertake
    action research

VII. Competencies in
     Evaluation

67. Competency to develop
    evaluation tools

68. Competency to prepare
    a blue print for
    evaluation

69. Competency to develop
    items for an
    achievement test
    (including criterion
     referenced test)

70 Competency to prepare
    practical works for
    evaluation

71 Competency to use
    evaluation tools

VIII. Competencies in
      Dissemination

72. Competency to edit
    data/articles/reports

73 Competency in
    documentation and
    dissemination of data/
    practices/findings

74. Competency to prepare
    annual calender

IX. Miscellaneous

75. Competency to undertake
    school mapping

76. Competency to elicit
    community participation

77. Competency to develop
    and organise hobby club

134

	1	2	3	4
78. Competency to maintain farm/garden (for W.E. Activities)				
79. Competency to conduct micro planning				
80 Competency to maintain a resource room				

APPENDIX E

REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE

PERCEPTION OF A DIET FACULTY MEMBER OF THE
COMPETENCIES POSSESSED

Dear Sir/Madam,

Given below is a list of competencies Please indicate the level at which you possess each competency with a tick mark (/) at the relevant column For eg., with respect to competency no 1 (i.e. "Competency to organise the teaching content") if you are highly competent you may put a tick mark (/) in front of Competency No. 1 under column No. 1 (i.e. highly competent). Please do not leave any competency unticked

Sl. No.	Competencies	Highly compe- tent 1	Fairly compe- tent 2	Less compe- tent 3	Not compe- tent 4

I. Competencies in teaching

1. Competency to organise the teaching content

2. Competency to design learning experiences

3. Competency to plan instruction

4. Competency to design instructional material

5. Competency to design activity based learning

6. Competency to communicate effectively

7. Competency to use alternate teaching methodologies

8. Competency to individualise instruction

	1	2	3	4

9   Competency to promote
student participation
in learning process

10. Competency to use audio
visual aids (graphic
and projected aids)

11. Competency to use
teaching aids (other
than graphic and
projected aids)

12. Competency to maintain
harmonious relationship
with students

13. Competency to provide
effective feedback

14. Competency to use
techniques of
motivation

15. Competency to assess
students performance

16. Competency to provide
work experience

17. Competency to analyse
learning difficulties

18. Competency to take
remedial action

19. Competency to keep the
records of student's
performance

20. Competency to organise
field trips, projects
and workshops

21. Competency to arrange
co-curricular
activities

22. Competency in classroom
management

	1	2	3	4
23. Competency to undertake self evaluation				
II. Competencies in Guidance and Counselling				
24. Competency to provide educational, personal, social and vocational guidance				
25 Competency to undertake counselling				
III. Competencies in Instructional Design				
26 Competency to develop locally relevant instructional material				
27. Competency to identify and use locally available material				
28. Competency to prepare low cost teaching aids				
29 Competency to display teaching material systematically				
30. Competency to develop audio programmes				
31. Competency to repair and maintain teaching aids/ equipments (including sports equipment)				
32. Competency to maintain (a) Library				
33. (b) Science Lab.				
34. (c) Psychology Lab.				
35 (d) Audio Visual Aids				

	1	2	3	4

36 Competency to develop
graphic aids

IV. Competencies in
Designing Training
Programmes

37. Competency to identify
training needs

38. Competency to plan
training programmes

39. Competency to design
training material

40. Competency to co-ordinate
training programme

41. Competency to monitor a
training programme

42. Competency to design a
training material for
distance education

43. Competency to valuate a
training programme

44. Competency to organise
follow up activities
after training (including
continuing education)

V. Subject Related
Competencies
Competency to train
teachers in

45. Competency based
teaching

46. Minimum levels of
learning approach

47. Continuous and
comprehensive evaluation

48. Individualising
instruction

	1	2	3	4

49 Learner centered
    education

50. Multigrade teaching

51. Peer-group tutoring

52. Activity based
    teaching

53. Universalisation of
    Elementary Education

54. Institutional planning/
    management

55. Action research

56. District Primary
    Education Programme

57. Educational Technology

58. Work experience

59. Finance and Account/
    Office procedure

60. Making education
    joyful

61. Dealing children with
    special needs

VI. **Competencies in
    Research and Data
    Processing**

62. Competency to record
    data

63. Competency to tabulate
    data

64. Competency to analyse
    and interpret data

65. Competency to report
    project Activity/
    Research

	1	2	3	4

66. Competency to undertake action research

VII. Competencies in Evaluation

67 Competency to develop evaluation tools

68. Competency to prepare a blue print for evaluation

69. Competency to develop items for an achievement test (including criterion referenced test)

70. Competency to prepare practical works for evaluation

71. Competency to use evaluation tools

VIII. Competencies in Dissemination

72. Competency to edit data/articles/reports

73 Competency in documentation and dissemination of data/ practices/findings

74. Competency to prepare annual calender

IX. Miscellaneous

75. Competency to undertake school mapping

76. Competency to elicit community participation

77. Competency to develop and organise hobby club

	1	2	3	4
78. Competency to maintain farm/garden (for W.E. Activities)				
79. Competency to conduct micro planning				
80 Competency to maintain a resource room				

APPENDIX *F*

REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE

TRAINING NEEDS OF THE DIET FACULTY

Dear Sir/Madam,

Given below is a list of competencies. Please indicate the level of training you would require for each competency, by putting a tick mark (/) under the appropriate column. For eg. with respect to competency no. 1 (i.e. "Competency to organise the teaching content") if you require a snort term training then put a tick mark (/) under column no. 3 (i.e. "require a short term training"), please do not leave any competency unticked.

Sl. No.	Competencies	Train ing not requ- ired	Require theore- tical orien- tation	Require a short term train- ing inclu- ding theore- tical orient- ation	Require a long term train- ing inclu- ding theor- etical orien- tation
		1	2	3	4

I. Competencies in teaching

1. Competency to organise the teaching content

2. Competency to design learning experiences

3. Competency to plan instruction

4. Competency to design instructional material

5. Competency to design activity based learning

6. Competency to communicate effectively

	1	2	3	4

7. Competency to use
   alternate teaching
   methodologies

8 Competency to
   individualise instruction

9. Competency to promote
   student participation
   in learning process

10 Competency to use audio
   visual aids (graphic
   and projected aids)

11. Competency to use
    teaching aids (other
    than graphic and
    projected aids)

12. Competency to maintain
    harmonious relationship
    with students

13. Competency to provide
    effective feedback

14. Competency to use
    techniques of
    motivation

15. Competency to assess
    students performance

16. Competency to provide
    work experience

17. Competency to analyse
    learning difficulties

18. Competency to take
    remedial action

19. Competency to keep the
    records of student's
    performance

20. Competency to organise
    field trips, projects
    and workshops

	1	2	3	ᵥ
21. Competency to arrange co-curricular activities				
22. Competency in classroom management				
23. Competency to undertake self evaluation				
II. Competencies in Guidance and Counselling				
24. Competency to provide educational, personal, social and vocational guidance				
25. Competency to undertake counselling				
III. Competencies in Instructional Design				
26. Competency to develop locally relevant instructional material				
27. Competency to identify and use locally available material				
28. Competency to prepare low cost teaching aids				
29. Competency to display teaching material systematically				
30. Competency to develop audio programmes				
31. Competency to repair and maintain teaching aids/ equipments (including sports equipment)				

	1	2	3	4

32. Competency to maintain
    (a) Library

33. (b) Science Lab.

34. (c) Psychology Lab.

35 (d) Audio Visual Aids

36. Competency to develop
    graphic aids

IV. Competencies in
    Designing Training
    Programmes

37. Competency to identify
    training needs

38. Competency to plan
    training programmes

39. Competency to design
    training material

40. Competency to co-ordinate
    training programme

41. Competency to monitor a
    training programme

42 Competency to design a
    training material for
    distance education

43. Competency to valuate a
    training programme

44. Competency to organise
    follow up activities
    after training (including
    continuing education)

V. Subject Related
   Competencies
   Competency to train
   teachers in

45. Competency based
    teaching

	1	2	3	4
46. Minimum levels of learning approach				
47. Continuous and comprehensive evaluation				
48. Individualising instruction				
49. Learner centered education				
50. Multigrade teaching				
51. Peer-group tutoring				
52 Activity based teaching				
53. Universalisation of Elementary Education				
54. Institutional planning/ management				
55. Action research				
56. District Primary Education Programme				
57. Educational Technology				
58. Work experience				
59. Finance and Account/ Office procedure				
60. Making education joyful				
61. Dealing children with special needs				

VI. Competencies in Research and Data Processing

62. Competency to record data

	1	2	3	4
63 Competency to tabulate data				
64. Competency to analyse and interpret data				
65. Competency to report project Activity/ Research				
66 Competency to undertake action research				
VII. Competencies in Evaluation				
67. Competency to develop evaluation tools				
68. Competency to prepare a blue print for evaluation				
69. Competency to develop items for an achievement test (including criterion referenced test)				
70. Competency to prepare practical works for evaluation				
71. Competency to use evaluation tools				
VIII. Competencies in Dissemination				
72. Competency to edit data/articles/reports				
73. Competency in documentation and dissemination of data/ practices/findings				
74. Competency to prepare annual calender				

	1	2	3	4

IX. Miscellaneous

75. Competency to undertake
    school mapping

76. Competency to elicit
    community participation

77. Competency to develop
    and organise hobby club

78. Competency to maintain
    farm/garden (for W.E.
    Activities)

79. Competency to conduct
    micro planning

80. Competency to maintain
    a resource room

1. Where would you prefer to have the training programme
   conducted ? (At your DIET/outside DIET)

2. What duration would you prefer for a short term training
   programme ? (Less than 3 days/3 to 5 days/5 to 7 days/
   7 to 10 days/10 to 15 days)

3. What duration would you prefer for a long term training ?
   (10 to 15 days/less than 1 month/1 to 3 months/3 to 6
   months/upto 1 year)

4. What type of programme would you prefer ? (Contact mode/
   Distance mode/Institutionalised)

APPENDIX G

REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE

GUIDELINES FOR INTERVIEW

General

a. When do you plan a programme ?

b. Is there any scope for modification of the plan ?

c. What is the time gap you give after communication ?

d Do you communicate directly to the trainees ?

e What instructions do you provide to the trainees ?

f. (Budget)

Training Programme

1. Planning and Preparation

C.37. Identify training needs

- Have you conducted any training programme ?

- Which are they ?

- Why did you think of these training programmes ?

- How do you know that training is required on a topic ? and
how do you select the trainees ?

C.39. Designing training material

- What do you do to conduct a training programme ?

C.42. Designing training material for distance education

- What do you do to conduct a training under distance
education

C.26. Develop locally relevant instructional material

- Have you developed any instructional material for
training ?

- For whom are they developed ?

- What are they ?

- On what basis did you develop the instructional material ?

C.27. Identify and use locally available material

- What material are available in your environment which are useful in your training ?

- Which of them have you made use of and how ?

C.30. Develop audio programmes

- Have you developed any audio programmes ?

- How many have you developed ?

- What are they ?

- Do you have any further proposals for developing ?

C.36. Develop graphic aids

- Do you use graphic aids ?

- From where do you get them ?

- If you prepare how do you go about preparing them ?

2. Organising

C.20. To organise field trips, projects and workshops

- Do you organise field trips, projects and workshops ?

- How many field trips, projects and workshops have you organised ?

- Which places do you go often ?

- What would you do there ?

- How frequently do you conduct trips, projects and workshops?

C.21. Arrange co-curricular activity

- Do you also organise co-curricular activity ?

- Have you been trained ?

- In which type of training programmes do you organise these co-curricular activities ?

- What do you do during the co-curricular activity ?

- How do you go about what all you do ?

3. Conducting

C.7. To use alternate training methodologies

- Which methods do you use in the training ?

- How do you decide which method is appropriate ?

- Have you ever tried the combination of methods ?

- If yes which combination have you tried and in which training ?

C.8. To individualise instruction

- Do you think that instruction can be individualised ?

- Please describe the efforts made by you to individualise instruction

C.9.To promote trainee participation in learning process

- Do your students participate in the class ?

- What percentage of trainees may participate ?

- How do you promote participation of trainees ?

C.22. Classroom management

- Have you come across any problematic situation in your class ?

- What percentage of trainees will cause problems ?

- Why do you think they do so ?

- How do you manage them ?

C. Coordination

C. Monitoring

C. Finance and office procedure

4. Content

General question to be asked for each of the following

- What strategy do you suggest or adopt for training teachers on the following ?

   a. Competency Based Teaching

   b. MLL Approach

   c. Continuous-Comrehensive Evaluation

   d. Individualising Instruction

   e. Learner Centred Education

   f. Multigrade Teaching

   g. Peer Group Tutoring

   h. Activity Based Teaching

   i. UEE

   j. Institutional Planning and Management

   k. Action Research

   l. DPEP

   m. ET

   n. WE

   o. Special Education

   p. Making Education Joyful

5. Evaluation

C.43. Evaluate (of outcomes) a training programme

- Do you evaluate a training programme ?

- When do you evaluate ?

- How do you evaluate ?

- What do you do with the evaluation ?

C.17. Analyse learning difficulties

- Are there trainees who have difficulties in learning ?

- If there are what do you do ?

C.18. Take remedial action

- Does your training programme have special inputs for tne-?

C.13. Provide effective feedback

- Is there a need to provide feedback to the trainees ?

- How do you provide feedback to the trainees ?

6. Follow up

C.44 Organise follow up activities after training
     (including continuing education)

- Suppose you have conducted a training, what happens to the
  trainees later ?

- How do you know that your training is being used ?

- Do you have contact with the trainees ?

7. Guidance and Counselling

C.24. Provide educational,personal,social,vocational
      guide

- Do the trainees approach you with their problem ?

- What type of problems do they appear with ?

- How much time do you spend for guidance ?

- Are you trained ?

C.25. Undertake counselling

- What are the typical personal problems of your trainees ?

- What is your role ? How often are you doing it ?

- Are you trained ?

8. Self-Evaluation

C.23. Undertake self evaluation

- Can you assess your strengths and weaknesses and does this
  help you to improve.

9. Maintainance

C.31. Repair and maintain teaching aids/equipments (include sport equipments)

- What are the teaching aids/equipments you have ?

- Are they all in working condition ?

- How often do you use them ?

- Who maintains if they are out of order ?

- What are the common defects ?

C.32. Maintain a library

- Do you have a library ?

- What is your role in maintaining it ?

C.33 Maintain Science Laboratory (to science lecturer)

- Do you have a science lab ?

- What facilities does it have ?

- How do you maintain ?

C.34. Maintain psychology laboratory

- Do you have a psychology lab ?

- How is it put to use ?

C.35. Maintain A-V aids

- Do you have A-V aids ?

- How do you maintain these aids ?

C.80. Maintain a resource room

- Do you have a resource room ?

- What facilities/equipments does it have ?

- How do you maintain the resource room ?

10. Community Participation

C.76. Elicit community participation

- Do you keep contact with community ?

- How do you take the help of community resources ?

11. Annual Calender

C.74. To prepare annual calender

- Do you have an annual calender in your DIET ?

- Do you have an annual calender for activities for you individually ?

- What all are contained in the annual calender ?

12. Research

C.72. To edit data/articles/reports

- Have you done any action research ?

- Is the report published and circulated ?

- What are the data you collect ? What do you do with it ?

13. Documentation and Dissemination

C.73. In documentation and dissemination of data/ practice/findings

- Have you come across any innovative practices ?

- Have you maintained record of them ?

- What efforts have you made to disseminate the information?

14. Reporting
C.72. To edit data/articles/reports

- Do you prepare reports of your training ?

- What all do you include in the report ?

- Do you have a newsletter and how do you contribute to it ?

APPENDIX *H*

LETTER TO THE DIET PRINCIPAL

REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE-570 006

Dr Vasant D. Bhat   20-1/ETC/RIEM/97-98/
Reader   24 June 1998

Dear Sir,
        Sub: Training Calendar of your DIET for the month
             of July-September 1998 - Reg

        You are aware that the Educational Research and
Innovation Committee (ERIC) of the NCERT, New Delhi, is an
apex body which undertakes researches which have policy
implications. Under the auspices of this national body, the
RIE, Mysore, has taken up a study on teacher training with a
view to strengthen the efforts made by the states in general
and the DIETs in particular.

        In this regard, and under intimation the State
authorities, a plan is being worked out. This is to request
you to kindly send a copy of the inservice teacher training
calendar of your DIET for the month of July to September
1998, which is necessary for the planning. Specifically, we
are in need of the following informations:

Sl. No.	Title of the programme	Name of the Coordinator	Level of partici- pants	Exact dates	Venue	No. of partici- pants

        Kindly treat this as very URGENT and send the information
addressed to: Dr. Vasant D. Bhat, Reader, Regional Institute
of Education (NCERT), Mysore-570 006, preferably by speed
post.

        Thanking you in anticipation.

                                        Yours faithfully,

                                        [VASANT D. BHAT]

The Principal, DIET

.

REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE-570 006

APPENDIX 'I'

OBSERVATION PROFORMA

Address of DIET : _____

Training Context: (Preservice/Inservice): _____

If inservice, title of the training: _____

Name of the faculty: _____

Wing : _____

Age : _____

Time: _____

Year of experience : _____

Competencies and their components	Observed Yes/No	Specification of the item observed	0	1	2	3	4	5
1 Competency to organising teaching/training content.								
- accuracy of teaching content.								
- sequence of organisation (simple to complex, known to unknown, etc.).								
- extent to which objectives are attained.								
2. Competency to design learning experiences.								
- learning experience appropriate to ability of the learning.								
- learning experience leads to attainment of objectives.								
- appropriateness of the time provided.								

Competencies and their components	Observed Yes/No	Specification of the item observed	0	1	2	3	4	5
3. Competency to design activity based learning.								
- clarity of instructions.								
- sufficiency of material.								
- appropriateness of formats and worksheets.								
- relevance of the activity to the group and content.								
4. Competency to communicate effectively.								
a. Verbal								
- clarity and fluency in speech.								
- use of appropriate language.								
- delivery (tone, voice, pitch).								
- use of appropriate media and materials.								
- structure and delivery of questions.								
- structure and delivery of explanation.								
- structure and delivery of illustration.								
- structure and delivery of introduction.								
- structure and delivery of summarising.								

Competencies and their components	Observed Yes/No	Specification of the item observed	0	1	2	3	4	5
b. Non-verbal								
- selects appropriate medium for communication.								
- warmth, empathetic.								
- uses appropriate body language.								
- receives feedback.								
5. Competency to individualize instruction.								
- gives attention to all individuals in the group.								
- identifies needs and interests of every individual.								
- able to extend help when needed.								
- encourage questions and queries from trainees.								
- gives guidance whenever and wherever necessary.								
- takes interest in individual development.								
6. Competency to promote student participation in learning process.								
- secures and sustains pupil's attention through varied stimuli.								
- invites and encourages student participation in discussion.								
- takes up trainee-centered, activity-based teaching.								
- increase pupil's participation by use of verbal and nonverbal cues and reinforces.								

Competencies and their components	Observed Yes/No	Specification of the item observed	0	1	2	3	4	5
7. Competency to use Audio-Visual aids.								
- preparation for using A-V aids such as arrangement of equipments and material, seating arrangement, etc.								
- preparation of the group for audio-visual experience.								
- visibility and audibality to the group.								
- suitability of explanation at the time of using.								
- involvement of the participants while using.								
- skillful in using the projector.								
- appropriateness of display (of charts).								
- summarising the experience.								
8. Competency to provide effective feedback.								
- identifies learning difficulties.								
- appropriateness of the verbal/non-verbal reinforces.								
- use of positive reinforces.								
- use of negative reinforces.								

Competencies and their components	Observed Yes/No	Specification of the item observed	0	1	2	3	4	5
9. Competency to maintain harmonious relationship with trainees.								
- warmth.								
- students are keen to participate.								
- avoids arguments to discourage antogonism between teacher and student.								
- reinforces attending behaviour.								
- interacts with people effectively.								
10. Competency to use techniques of motivation.								
- able to arouse interest/curiosity among trainees.								
- relates the task to one's previous experience.								
- traces historical development.								
- able to generate greater participation.								
- can evaluate the level of motivation of students.								
11. Competency to provide work experience.								
- appropriateness of the activity.								
- activity distributed such that all trainees are able to participate or do it individually.								
- able to perform the activity himself.								
12. Competency to analyze learning difficulties.								
- diagnose and identify the difficulties.								

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Competencies and their components	Observed Yes/No	Specification of the item observed	0	1	2	3	4	5
13. Competency to take remedial action.								
- provide appropriate instruction with respect to trainee difficulties after diagnosis.								
- organise remedial experience.								
- decide the procedure.								
- remedial action appropriate to task and trainee.								
- undertakes assessment of learning.								
14. Competency to assess student performance.								
- checks understanding at the end of development of each teaching point.								
- ascertain the realization of overall objectives.								
- identifies learning difficulties.								
- able to decide criteria for assessment.								
- uses appropriate tools for assessing student performance.								
- knows procedure of organisation (sitting arrangement, administering test, collecting responses, etc.)								
- able to individualise assessment.								

Competencies and their components	Observed Yes/No	Specification of the item observed	0	1	2	3	4	5
15. Competency to identify and use locally available material.								
- material used in locally and easily available.								
- cost effectiveness (low cost).								
- material used is appropriate to the task.								
16. Competency to arrange co-curricular activity.								
- aware of sports and games facilities available.								
- announces the rules of the activity/game.								
- activity planned systematically.								
- appropriate use of the resources (human/material).								
- suitability of the activity.								
17. Competency to organise field trips, projects and workshops.								
- appropriateness of the place and arrangement.								
- capable of managing finances.								
- ensure all necessary documents are available.								
- provide suitable instruction/direction								
- able to accommodate trainee needs.								
- familiarity with the trainees.								
- evaluates the effectiveness of the program.								

Competencies and their components	Observed Yes/No	Specification of the item observed	0	1	2	3	4	5
18. Competency of classroom management.								
- reinforces attending behaviour.								
- reacts to misbehaviour.								
- uses nonverbal behaviour to inhibit development of a potential problem.								
- appropriateness of techniques used.								
19. Competency to display teaching materials systematically.								
- teaching materials shown at appropriate time.								
- teaching materials visible to all trainees.								
- su ficiency of the duration of display.								
20. Competency to repair and maintain teaching aids (including sports equipments).								
- keep teaching aids and equipment in working condition.								
- storage and accessibility of material.								
- able to repair the equipment, if out of order.								
21. Competency to maintain a library.								
- maintains systematic issuing and returning procedure.								
- cataloging of books.								

Competencies and their components	Observed Yes/No	Specification of the item observed	0	1	2	3	4	5
22. Competency to maintain a science lab.								
- maintains records for procurement.								
- able to repair and maintain equipments.								
- plan of the lab.								
- accessability and storage of material.								
23. Competency to maintain psychology lab.								
- maintains equipments (tests) in the lab.								
- arrangement for undertaking testing/demonstration.								
- maintains records.								
24. Competency to maintain Audio-Visual aids.								
- storage and accessiblity of A-V aids.								
- A-V aids kept in working condition.								
- utilise and maintain records.								

Competencies and their components	Observed Yes/No	Specification of the item observed	0	1	2	3	4	5
25. Competency to plan training programme.								
- specifies objectives.								
- time scheduling.								
- contingency management.								
- utilization of resources.								
- sufficiency of material/facility.								
- able to coordinate.								
- able to give feedback and evaluate.								
- monitoring of the programme.								
26. Competency to coordinate training programme.								
- allocation of tasks.								
- communication to people.								
- management of time and resources.								
27. Competency to monitor a training programme.								
- assessing the implementation of activities of the programme in relation to plan.								
- identifying deficiencies.								
- taking corrective measures.								

Competencies and their components	Observed Yes/No	Specification of the item observed	0	1	2	3	4	5
28. Competency to prepare practical works for evaluation.								
- originality and variety of practical work.								
- appropriateness of the organisation of practical works for evaluation.								
- adequacy.								
- clarity and appropriateness of instruction.								
- provides scope to practice and apply knowledge and skills.								
29. Competency to use evaluation tools.								
- gives proper instruction.								
- appropriateness of sitting arrangement, classroom environment.								
- gives adequate time for responding to the test.								
30. Competency to develop and organise a hobby club.								
- orientation of the members selected.								
- organisation of the activities of the club.								
- budgeting.								

Competencies and their components	Observed Yes/No	Specification of the item observed	0	1	2	3	4	5
31. Competency to maintain a farm/garden.								
- plan of farm/garden.								
- activities planned for the farm/garden.								
- frequency of watering, etc.								
32. Competency to maintain a resource room.								
- ability to utilise the resources.								
- knowledge of resources.								
- maintains stock registers.								
- arrangement of resources.								
33. Competency to organise group activity.								
- appropriateness of the formation of the groups.								
- clarity of instructions.								
- sufficiency of instructions.								
- sufficiency of time and material.								
- relevance of the activity to the group, content and objectives.								
- adequacy of guidance and supervision.								

34. Competency to use alternate teaching methodologies (check list).

Methods	Used very often	Used often	Used rarely	Never used
Lecture method				
Demonstration method				
Activity-based teaching				
Project method				
Playway method				
Concept-attainment approach				
Guided-discovery method				
Inductive-deductive method				
Problem solving method				
Group discussion method				
Methods to develop creativity				

APPENDIX 'J'   REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE-570 006

RATING SCALE FOR ANALYSIS OF COMPETENCIES FROM DOCUMENTS/MATERIAL

Address of DIET:

Document Analysed

No.

I. Lesson Plan
II. Training Programme Plan
III. Annual Calender
IV. School Mapping
V. Micro Plan
VI. Instructional/Training/Material
VII. Teaching Aids

VIII. Audio-Visual Aids
IX. Blue Print of a Test
X. Evaluation Tools
XI. Records of Trainees
XII. Material for Follow-up Activities
XIII. Report of Research
XIV. Report of Programme

Competency Analysed	0	1	2	3	4	5
I. Lesson Plan						
1. Competency in specification of objectives.						
- stated in behavioural terms.						
- adequate in terms of time.						
2. Competency to organise the teaching content.						
- accuracy of the content.						
- appropriateness to the objectives stated.						
- sequence of organisation.						
3. Competency to plan instruction.						
- adequacy of the components contained in the plan.						
- and clarity.						

Competency Analysed	0	1	2	3	4	5
4. Competency to design learning experiences.						
– appropriateness to objectives						
– appropriate to the level of the trainees.						
– appropriate in terms of allocation of time.						
II. Training Programme Plan						
5. Competency to identify training needs.						
– appropriateness of the source used.						
– appropriateness of the procedure used for need assessment.						
6. Competency to plan training programme.						
– specification of objectives.						
– time scheduling.						
– budgeting and financial estimates.						
– develop training materials.						
– developing feedback and evalution tools.						
– the correspondence with administration, colleagues, resource persons and participants.						
III. Annual Calender						
7. Competency to prepare annual calender.						
– plan programmes for the year.						
– time allocation.						
– decision of target group.						

Competency Analysed	0	1	2	3	4	5
IV. School Mapping						
8. Competency to undertake school mapping.						
- record of resources available around the school.						
- appropriateness of the representation made.						
V. Micro Plan						
9. Competency to conduct micro planning.						
- accuracy						
- comprehensive						
VI. Instructional/Training Material						
10. Competency to design instructional material (Printed)						
- appropriate in terms of content, coverage and adequacy.						
- style of presentation and language used.						
- use of illustrations and examples.						
- nature and appropriateness of activities with respect to objectives.						
- variety in instructional material.						

Competency Analysed	0	1	2	3	4	5
11. Competency to design activity based learning.						
– nature of activities planned.						
– relevance to trainees						
– appropriateness with respect to time						
– appropriateness with respect to objectives.						
12. Competency to individualize instruction.						
– training material appropriate to trainees						
– training material allow self pacing of trainees.						
– scope for individual assessment.						
– individualised evaluation and reinforcement.						
13. Competency to develop locally relevant. instructional material.						
– instructional material suitable to trainees and objectives.						
– instructional material is local specific in terms of environment, culture, life style, etc.						

Competency Analysed	0	1	2	3	4	5
14. Competency to design training material.						
- training material appropriate to content, coverage and is original.						
- training material adequate with respect to trainees abilities.						
- training material adequate with respect to time and objectives.						
- variety in training materials.						
15. Competency to design training material for distance mode.						
- appropriateness of training material for distance mode.						
- appropriateness for distance mode in terms of language, content coverage and increment.						
- scope for self evaluation and feedback.						
VII. Teaching Aids (Models/Specimens/Charts/Maps)						
16. Competency to prepare low cost teaching aids.						
- raw materials used easily available.						
- raw materials used locally available.						
- cost effectiveness.						
- aids appropriate to objectives and trainees.						
- appropriateness of visuals in charts and maps.						

Competency Analysed	0	1	2	3	4	5
VIII. Audio-Visual Aids						
17. Competency to develop audio programmes.						
- programmes relevant with respect to content and objectives.						
- able to develop own script.						
- appropriateness of the format.						
- quality of production.						
18. Competency to develop graphic aids and projected aids.						
- appropriateness of graphic aids with respect to purpose.						
- appropriateness with respect to layout and drawing.						
- appropriateness with respect to content and written material.						
- appropriateness with respect to colouring, size and lettering.						
- originality shown in making graphic/projected aids such as transparency, projected film strips, slides.						
IX. Blue Print of a Test						
19. Competency to prepare a blue print for evaluation.						
- proper weightages given to content and domain.						
- familiarity with the matrix (format).						

Competency Analysed	0	1	2	3	4	5
X. Evaluation Tools (Tests)/Material						
20. Competency to develop evaluation tools.						
- clarity of items.						
- overall coverage and appropriateness with respect to objectives.						
- comprehensiveness of coverage of outcomes.						
- distribution over the entire training programme.						
21. Competency to develop items for an achievement test.						
- follows guidelines for item writing (clarity and appropriateness).						
- organises items in a sequential order.						
- variety and appropriateness of items for testing.						
22. Competency to prepare practical works for evaluation.						
- relevance of practical works prepared.						
- distribution among all the trainees.						

Competency Analysed	0	1	2	3	4	5
XI. Records of Trainees						
23. Competency to keep records of student performance.						
- different aspects written in records.						
- regularity and adequacy of entries.						
- appropriateness and adequacy of the storage and retrieval system (filling, computerised).						
- record adequate to record all the entries.						
- simplicity of the format used.						
XII. Material for Follow-up Activities (Letters/ Correspondence)						
- regularity of follow up.						
- suitability of time gap.						
- suitability of other material/proforma used for follow up.						
XIII. Research Report/Report of Programme						
25. Competency to undertake Action Research.						
- states problem clearly.						
- objective stated clearly.						
- follows proper methods and statistics.						
- action hypothesis stated and its testing.						
- research undertaking relevant.						
- construction of tools.						
- selection of appropriate tools.						
- appropriateness of conclusion and implications drawn.						

Competency Analysed	0	1	2	3	4	5
26. Competency to record data.						
- data systematically recorded.						
- data recorded is meaningful.						
27. Competency to tabulate data						
- table prepared appropriate for analysis.						
- table is easy to read.						
28. Competency to analyse and interpret data.						
- statistical techniques used appropriate.						
- interpretation accurate.						
- appropriateness of presentation of qualitative data.						
29. Competency to report project activity/research.						
- objectives clearly stated.						
- language used clear.						
- adherence to technicalities.						
- organisation of the chapter.						
- appropriateness of indexing and references.						

Competency Analysed	0	1	2	3	4	5
Competency to edit data/articles, reports.						
- brievity.						
- representation of important elements.						
- organisation of individual items presented.						
31. Competency in documentation and dissemination.						
- data documented comprehensive and accurate.						
- procedures of updating data.						
- accessability of documental data.						
- dissemination through appropriate media.						
- regularity in dissemination.						
- appropriate to the target group						